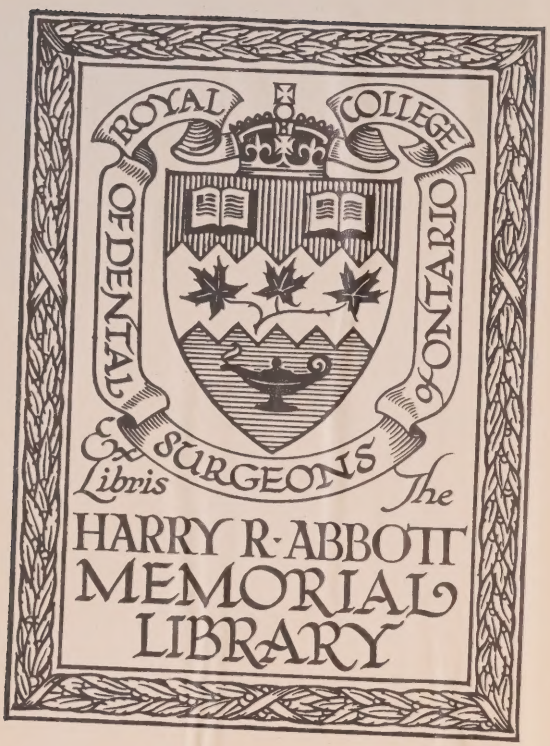

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THE CARSWELL COMPANY LIMITED

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Volume 7 Number 1

JUNE - 1917

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Ash's Canadian Quarterly

Issued from Toronto, June, September, December, March

Claudius Ash, Sons & Co., Limited
CANADIAN BRANCH
11-13 Grenville Street, Toronto, Canada
Main Depot London, W., England

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IN sending your Mail Orders to Ash & Sons you have the choice of many products of our numerous factories covering almost every conceivable article used in Dentistry. Should our Canadian Depot be too far away to send your mail orders direct, specify Ash Manufacture when ordering from your local dealer.

In addition to our own manufacture, we stock the following lines :—

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And many other lines of Merit.

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CLAUDIUS ASH, SONS & CO., Limited

CONTENTS

JUNE, 1917

Advertising Section - - - Page 2

Original Matter—

50th Anniversary of Ontario Dental Society
President's Address - - Page 3

Advertising Section - - - Page 12

Ash's Popular Broaches

Coarse :: Medium :: Fine
Extra Fine :: Assorted

Per Gross :: :: $5.00

CLAUDIUS ASH, SONS & CO., Limited

Ash's Popular Temporary Stopping

Pink :: White :: Assorted

Per Package - - - - $ .30
Six Packages - - - - . 1.50

CLAUDIUS ASH, SONS & CO., Limited

Ash's Canadian Quarterly Circular

Vol. VII. TORONTO, JUNE 1, 1917 No. 1

50th Anniversary of Ontario Dental Society

President's Address

Ross Thomas, D.D.S., London, Ont.

Mr. Chairman and Members of the Ontario Dental Society:

We are gathered from far and wide to celebrate the fiftieth anniversary of the founding of this society. Its founders did vastly more than they ever knew or dreamed. It has grown from a very small beginning to be the pulse of the dental profession of this province. There are many men in this room to-day who, like myself, would feel lost if they did not attend every meeting. Of the earlier history of this society I can tell you very little, and I am informed by the Archivist that the records previous to 1889 have been lost. In that year the society was reformed at London, I say reformed advisedly, for Dr. Webster says that for a few years previous to that time it had fallen into the hands of a "gang of shysters." It seems strange to me that a society of intelligent men such as we could go so long a time without permanent organization. I am informed on good authority, as we are not an incorporated body, that if our programme committee should take it into their heads to spend a large sum of money for whatever purpose, we are all severally and collectively responsible for the same. I would like to see something done to remedy this serious defect. Could we not appoint a strong committee to enquire into this matter and get us limited incorporation from the Government at once? It would be a nice thing for us to be able to buy

life membership in this society for a sum of money, say fifty dollars per head, and let that money be invested as a sinking fund, the revenue of which would be sufficient to provide for the fixed expenses of any meeting, and would not leave the committee in charge at the whims of the membership for funds to run a meeting during any particular year. This life membership need not necessarily exempt any one from paying his or her annual fee. Let the active members who only attend as they fancy pay the annual fee as at present, and elect half of a board of control, the life members electing the other half. The president could then be elected by the board from the vice-presidents who are the presidents elect of the local dental societies of the province, as at present. It would seem to be a fitting way to celebrate the fiftieth anniversary of this society by giving it a legal status and putting it on solid foundation.

It is a privilege to attend a meeting such as this. It is filled with good fellowship. It gives a man a chance to discuss subjects of his profession in technical language, so that he does not forget how to express himself. There are high ideals set up, too. Something worth striving for. 'Tis here that we meet the highest men in our profession face to face. We are able to see them, hear their voices and get in close touch with them. We have all of us looked upon Dr. C. N. Johnson as the daddy of our profession, but to many of us he is as mythical as Santa Claus. His "say so" has always been law to us. We have the most implicit faith in him. Here we are to meet him. There are others, too, but time does not permit.

A profession is as great as the rank and file of which it is composed. It should always be the aim of its controlling factors to keep the men in the rank and file as proficient as possible, and get for them the respect of the community in which they live and work. How can this best be done? What is being done by our College Board? I think it would be fair to the public if we were all brought back every few years and asked to write and pass our examinations again. What would you think of having an inspector with power to act? Every little while some one will tell you that he read that in so and so's book. It is enough to make so and so turn over in his grave if he is dead, and if he is not any court in the land would look upon it as a case of justifiable homicide, the book being so old. Why are the rank and file not practising better

dentistry to-day? The men who need this meeting the most are not here. Why? I can't tell you, but the excuses that some of the men I asked if they were coming to this meeting gave, were not sufficient to have kept me away.

How are we going to get the best men to take up the practice of dentistry? We need more men, but we have room for only the best. Young men go into professions for the reason that they think they can earn good livings for themselves and their families easier than they can in business. Before they start they are not well read on ethics, and have not the same high ideals that you and I have. They have to be shown where the money to have that good living is coming from, or they will not come. At a meeting of the London Dental Society last winter Dr. Webster made the statement that "a dentist was not a reader for the reason that he had to work so hard and for such long hours that he was too tired to read when he got home." What is the use of being educated if you have to work harder than a laborer "to earn your living"? It is all right to work hard, but to have to work hard to get the substance of life out of the work in hand, when you are a dentist, is a crime to be laid at some one's door who is responsible. In the county in which I live there are 110,000 people, and only twenty-eight dentists to care for them. This condition eliminates the element of opposition. It all helps. It is the same all over Canada. In order that our graduates can keep up the pace that is being set by the best men of our profession, they have to receive more compensation than they have in the past, and the only way this can be done is for them to have a good grounding in costing and accounting. The college did not teach this when I went to it, not so much because it did not want to, but because it did not know how. There are very few graduates to-day who have any idea how much it costs to do business. If they did, they would not sell their services for less than they cost to produce them. The new technical operations on root canal dressing, amputations, scientific painless extraction, prophylaxis, the only things that take dentistry away from the mechanics' realm, that hundreds of our men have slopped over for years, and for which they collected no fee, and they were not worth any fee the way they were done, take so long and have to be done so carefully that the men who do not know what they cost to perform them will be in the house of refuge before they know it if they do not learn costing in their business. It is a crime to guess at it.

In the mercantile world, business done in the manner that most of us do ours would land us in jail for attempting to defraud people from whom we were purchasing the goods that we were selling, by not keeping proper books.

It would not be possible for me to pass this opportunity to praise the work of the C.A.D.C. You all have, no doubt, read the story of the work as done by the French Army Dental Corps, as told by Dr. De Argent at Montreal last September. The story as told by Col. Clayton on many occasions is very similar in general. Our men have done a wonderful work. It will be even greater in the future. Their services will be even more appreciated after the war, when the events that have taken place will have been smoothed out so that we can get a comprehensive view of what has happened. We sorrow deeply over the good friends that we have lost, and we are glad when those of our friends receive the well-merited promotions that are handed out to them from time to time, and we wish them God-speed.

I wish to take this opportunity to thank you for your kindness in electing me to this position. It is a proud moment, indeed, in the life of one of the rank and file to be given this honor, and it is with a heart full of joy and thankfulness that I try to express myself to you.

I wish to join with you in thanking the committees for their untiring efforts in bringing this meeting together. They have given us a programme that will live in our memories as the best ever. I know that you will all show your appreciation of the efforts of those who will address us from this platform from time to time. It is no small sacrifice that they have made to be with us, and we must show them every courtesy.

The manufacturers have certainly done a very great deal to make our lot happy. It is indeed wonderful the beauty and usefulness of the equipment and materials that they provide for our comfort. They have spared no expense or trouble to give us the benefit of their efforts in all the latest ideas at this meeting, and we extend to them our heartiest thanks.

Thanking you for your kindly hearing.

Soldering of Teeth

THOMAS J. MCLERNON, D.D.S., Camden, New Jersey, U.S.A.

In the October and November, 1916, numbers of "Ash's Monthly" several practitioners have given their methods in "Soldering of Teeth."

Although bridge-work was also included, the methods given referred largely to soldering porcelain teeth on gold plates, etc.—a practice which in the United States is rapidly becoming obsolete (except for small partial plates, etc.), it being considered that the crevices left between the joints of the teeth, etc., are just so many nini for bacterial and fermentative culture, propagation and distribution. For this reason vulcanite attachment of teeth to gold-plate full sets is being largely practised.

Indeed, several State Boards of Examination formerly requiring the soldering of teeth to a plate as a practical test have discontinued this requirement and substituted bridge-work soldering therefor.

However, there is no great difference in the methods, excepting that *in plates* it is usual to use backings of stiff gold plate (usually 24 to 26 B. & S. gauge—0.02 to 0.016 inch), which are adapted as closely as possible to the teeth, and butted as closely as possible to the plate and one another, forming when soldered a continuous stiff gold band at the back of the teeth for a height of three to four millimetres from the plate; but usually beyond that height, for translucency and artistic considerations, receding back one to two millimetres from the tip and sides of the individual teeth towards the pins.

On the other hand, in porcelain-faced crowns and bridge-work ordinary flat-back teeth should be, and generally are, protected in *their entirety* by solid backings of (stiff) solder.

This difference is owing to the fact that almost any plate will give way somewhat, or tilt safely, under any sudden strain or pressure likely to break a porcelain facing; whereas there is practically no give in bridge-work, and the porcelain having to stand up to the strain must have strong enough protection from the backing at the tip to sustain such shocks.

The following I consider good practice in bridge-work:—

All impressions in crown and bridge-work should invariably be taken in plaster, and preferably with a combined plaster impression and bite. The inside of each pier or crown should have placed in it a little low-heat wax or vaseline before the model is poured. When the model is dry these should be taken off to remove the wax, then replaced, and, if necessary, tacked on again with sticky wax.

Porcelain facings should preferably be first roughly ground with coarse carborundum wheels, and temporarily waxed up to the piers, caps, or plate, then backed, and finally ground with fine wheels to fit. This fine and final grinding can be done by the dental engine.

Before applying the backing the tips of the bridge-work facings should be ground in a gentle slope from the pins to a feather edge at the tip. The backing, of 36 B. & S. gauge (0.005 inch) pure gold, may easily be burnished by hand—some prefer swaging—to a close fit, and removed. To ensure a strong tip a piece of 22-carat solder is fused on the backing over the burner, or, better still, a piece of iridio-platinum, clasp metal, or other stiff material is soldered on it (ordinary gold plate, however, is not as stiff as solder). This method holds enough metal at the tip to prevent any spheroiding of the melted solder denuding or thinning the tip of its proper quota of stiffening gold. Should a greyish tint be desired in the facing a piece of platinum foil may be placed under the backing.

In plates it was neither necessary nor the practice to grind the tips, and the backings were generally 18 to 20-carat gold about 24 to 26 B. & S. gauge. In order to have solder properly and neatly on these stiff backings when soldering, some, before finally placing them, ran a little solder where it was desired to have it go when finished.

Pins should *never* be either riveted or bent—practices which often cause invisible cracks. These are also often caused by forcing a heavy backing with inaccurately spaced holes on a facing. When using thin pure gold backings the pins are cut off rather short, to avoid unnecessary and wasteful balling of solder around them. The pure gold is laid on a piece of soft wood, and the facing pressed against it, pins down, to track the proper points to make the holes—made by simply piercing with a

bodkin, coarse needle, or other pointed instrument. The gold is then trimmed to shape, annealed by heating and immersion (preferably) in alcohol, fitted to tooth, removed for re-annealing, tipped if necessary, and before being replaced finally given a coat of whiting on the side next the facing to prevent any unwelcome flowing of solder thereon, then finally burnished tightly against the facing to the contour of the tooth, and against the short pins, by any suitable instrument. This backing will stay where put without further attention until soldered; but if assurance is desired to be doubly sure, a little sliver or barb of the platinum may be cut and turned down on each side of the pin and pressed close to the backing, merely using a sharp penknife. All that is required is simply to hold the backing in place until it is soldered, and nothing is trying to pull it away. Thick backings necessarily must be fitted more or less approximately, and as with them plate punches are necessary, the holes are sometimes wide or improperly spaced, forming apertures or spaces through which, unless much care is taken, solder may insinuate between the backings and teeth, and crack the latter. If a little porcelain should be around the base of the pin it may prevent a *thick* backing, unless countersunk, to go properly home.

In bridges, when facings are ground and backed (and cusps made), the bridge is finally assembled, using hard (very rigid) sticky wax to hold it together, and further stiffened before removal from model by embedding a small piece of slightly heated properly bent wire in the wax. It is then removed from the model—which, incidentally, is still available for use in case of accident—and invested, first seeing that no wax is left on the face or edges of the porcelain, or any part where solder or borax would be undesirable or harmful.

The investment material may be one of those supplied by dental houses, or approximately about 40 per cent. plaster and 60 per cent. of either coarse marble dust or clean sand. Prior to investing, the porcelain may be painted with thin whiting. Within reasonable limits the coarser the sand used the less the expansion or likelihood of investment cracking.

When the investment hardens it is trimmed roughly and all wax well boiled and scalded out of it. Should the wax be burned out the carbon formed is sometimes damaging to the strength of the platinum. On removal from the water the investment should

be trimmed so as to permit a free sweep of the blowpipe flame, and leave as little investment as possible; the function of the latter being to hold the parts in place, form a protective covering to the porcelain from the flame, and prevent borax or solder from flowing where not desired. Therefore the less investment the less trouble heating. It is then again placed in the boiling water, and all dust, cuttings, etc., thereby removed. Should any small portion of porcelain become uncovered it may, after boiling, be protected by an application of whiting. To this may be added clay, sifted ashes, or plaster. Waiting is practically unnecessary, after thorough boiling, before placing on drying flame if investment is coarse.

After final boiling, spaces between backings, if any, should have small pieces of metal (Dutchmen*) placed in them, or be have small pieces of metal (Dutchmen) placed in them, or be packed with filling gold. (Several years ago I successfully soldered two four-tooth bridges, which are still in use, without any backing except merely using as a substitute filling gold pressed closely on facings and pieces of plate laid on it.)

Borax should be applied where needed; and it is sometimes advantageous to scratch slightly with a sharp instrument the places where solder is desired to flow. Graphite in the shape of a soft pencil can be rubbed over the parts where solder is not desired, and acts as an efficient foil or barrier to its flow.

There is practically no danger in immediately heating a coarse well-boiled investment. I use a large Bunsen underneath a wire grid supported by a chemist's retort stand, on which the investment is placed for drying and heating, which may be done rapidly. The entire case should be about red hot before the flame touches the backing, to avoid cracking the teeth or have the solder globulate or flow sluggishly or improperly. If in a hurry, the Bunsen may be supplemented underneath by the blowpipe until ready to solder. In small single crown pieces the blowpipe is used both to dry the investment and solder. The investment must, however, be raised by pieces of plaster or otherwise above the asbestos block, so as to allow the flame to go underneath and properly heat it. The clay support of an inverted gas mantle is often a handy thing for this purpose.

Having solder in *long* strips, 3 to 4 millimetres wide, is quite

an advantage in placing it where desired. Some make cuts alternately from the ends almost the entire length of the pennyweight pieces usually supplied, and pull the whole piece out into one long strip. Sometimes, too, solder may be hammered thin and placed in crevices where it is feared solder will flow sluggishly. Incidentally, it is generally difficult to have solder flow anywhere except the blowpipe flame gets a clean sweep at it. In crevices the confined air sometimes keeps it out, and provision for its escape may be made by carefully boring a small hole through the bottom of the investment with a needle or other sharp-pointed instrument, or (as is sometimes done by me) attaching a stiff, thick waxed bristle at the point air is desired to escape at before investing. This burns out, leaving a small air-escape hole.

To have proper command of the blowpipe requires plenty of air, therefore the largest size of bellows is imperative unless compressed air is used.

When attaching bridges to shell crown piers it is well to bend and extend a small piece of scrap plate gold part way around the back of the crown as a leader for solder, to give a good solid attachment.

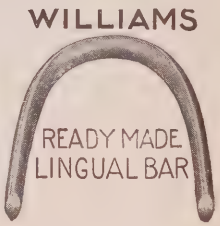
If it is necessary to add borax while soldering, it must be dry; and a good way of doing it is by means of a German silver wire having a handle, and tipped with a small piece of pointed 14 gauge B. & S. platinum wire. This, when heated red hot, will lift and place a small particle of broken dry lump borax where desired.

Teeth are cracked in several ways other than by too rapid heating or cooling, such as excess of borax fusing on them or causing a flow of solder between the facing and backing. A generally overlooked cause is not properly rounding shoulders on the porcelain, leaving angles which heavily soldered backings catch and contract on with great force on two opposite points.

Canadian Army Dental Statistics

From October first to December thirty-first, 1916, the Overseas Dental Corps in England reports the following statistics: Fillings made, 52,253; treatments, 13,723; dentures, 10,276; prophylaxis, 4,056; extractions, 59,676; pulps devitalized, 4,957, a total of 144,943 operations of all kinds made in three months. This statement will indicate in no uncertain terms the value of the dental service branch in the army.

WILLIAMS READY MADE LINGUAL BARS are properly bent, contoured, and semi adjusted, so that with very little manipulation they can be made to fit any case. Made with both plain and corrugated ends.



Gold Case Bars

Made of WILLIAMS OVAL LINGUAL BAR 18 k. and guaranteed for 10 years.

Guages (18x12—9x14—10x13) - $1.25 each

Made of WILLIAMS OVAL LINGUAL BAR 18 k. 1/5 the thickness of the bar, and guaranteod for 20 years. Guage, 9 x 14, $1.50 each.

Solid Gold Bars

Made of WILLIAMS 18 k. gold, 10 per cent. platinum. Guage, 9x14, $4.00 each. Guage, 10x13, $3.50 each.

Made of WILLIAMS 16 k. gold, 2 per cent. platinum. Guage, 10x13, $2.00 each.

Your Dealer or

The Williams Gold Refining Co.

REFINERS TO THE DENTAL TRADE

682 Main Street - - - Buffalo, N.Y.

Ash's Gold Solders

Unsurpassed in Color and working qualities

A leading Toronto Dentist says:—"The best Solder I have ever used."

14 kt.	- - -	$ .65 dwt.
16 kt.	- - -	.75 "
18 kt.	- - -	.85 "
20 kt.	- - -	.95 "
22 kt.	- - -	1.05 "

Ash's Dental Alloy Wire

Square and Round - $2.00 dwt.

Sold only in lengths of 2 dwt. each.

This wire is very rigid, being composed of Platinum and Silver and is high fusing enough to admit of pure gold being soldered to it.

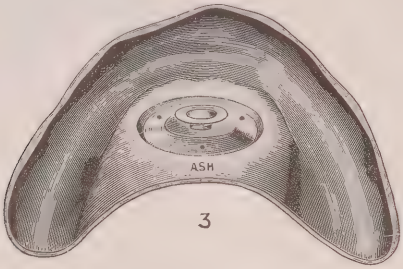
Claudius Ash, Sons & Co., Limited

Rauhe's Improved Suction Disc for Vulcanite Dentures

PATENTED IN ENGLAND, GERMANY, FRANCE, AUSTRIA-HUNGARY, BELGIUM, THE UNITED STATES, ETC.

Rauhe's Suction Disc has been specially designed to prevent injury to the palate. It does not draw down the tissues and produce soreness in the mouth. In this respect it is greatly superior to all existing Suction Discs.

There are no parts about it which can be lost or misplaced, such as bolts or screws, etc.



It is easily kept clean, owing to the fact that the rubber disc can be removed and replaced in a few seconds, without the use of a tool of any kind.

The anchorage of the rubber disc is so simple that the patient can renew the disc when necessary.

The suction power of the disc is sufficient to hold a denture quite firmly and securely in position.

It is unnecessary to add clasps to partial sets which are fitted with Rauhe's Suction Disc.

Directions for Use.

Press the disc on the most suitable part of the plaster of Paris model with the thumb, fasten it in position with the three small pins which are supplied with it, being careful to drive the head right home, and pack the hole in the centre with dental

rubber. After the case is packed and vulcanized, strip off the tin form in which the stud is embedded; the portion in which the pins are driven should be removed first. To facilitate removal, cut through the tin, open it with a pocket knife or suitable tool, and strip it off. Should the edge of the stud be bent in stripping off the tin form, it can readily be straightened with any blunt tool. When the stud is thus cleared of the tin form, slip a rubber disc over it and the Suction Disc is ready for use. To do this, the rubber disc should be held down with the thumb of the left hand and stretched over the stud with the thumb and forefinger of the right hand.

In regard to the position in which the Suction Disc should be set on the plaster of Paris model, it will be obvious that the flattest part of the palate should be chosen. Two Suction Discs should be used on exceptionally high palates and on V-shaped palates—one on each side. In the case of large palates it is desirable to set the Suction Disc as far back as possible.

Sometimes the full power of the Suction Disc is not immediately exercised when it is first put into the mouth, but after it has been worn for some time its action will be perfectly efficient.

SPECIAL.—To remove the collar from beneath the Stud, after the case is vulcanized, insert the point of an excavator in the slit exactly opposite the letter C in the name C. Rauhe and open it out gradually, without levering it up, so as not to injure the stud.

Prices.

Rauhe's Suction Discs for Vulcanite Work:

Gold Stud with 3 India-Rubber Discs	each	$ 1.00
	per doz.	11.25
Aluminum-Alloy Stud with 3 India-Rubber Discs,	each	.50
	per half doz.	2.50
Extra India-Rubber Discs, any size	per doz.	.65

Claudius Ash, Sons & Co., Limited

Sole Agents

1

Lancets for Abscesses, etc.

Figs 1 and 2. For Opening abscesses, trimming and smoothing filings, etc.

In Steel Handles, Nickel-plated,
Each - 40 cents

Other Lancets made or obtained to order.

2

Ash's Globe Copper Amalgam

(From the formula of Profs. W. D. Miller and Jung.)

Alloyed with 2½ per cent. of Tin. Recommended for colour, setting properties, and hardness.

This amalgam of Copper and Tin is the outcome of many experiments on the part of the above-mentioned eminent Professors Miller and Jung.

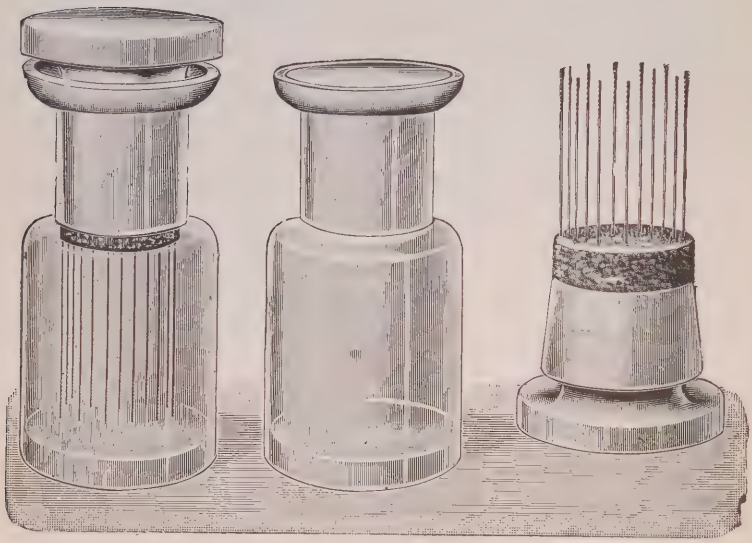
Price	per oz.	$1.00
In 6-oz. lots	per lot	5.00

At the time of its introduction Professor Miller in an exhaustive paper describing the experiments (Cor. Blatt., Apr., '94), said that the addition of tin in these proportions, viz., 2½ to 3%, was clearly proved to have the effect of lessening the chemical dissolution of the copper in the fluids of the mouth. Further, that it favourably affected the colour of the fillings, which remained grey in contrast to the black of the copper amalgams without tin. Extensive experiments for detection of shrinkage were carried out, and we have evidence from Germany, where it has been largely used since 1893, to show that in actual practice the conclusions drawn from the experiments as to its value as a filling material have been confirmed.

DIRECTIONS FOR USE.

Heat the Amalgam in a ladle until beads of mercury ooze out, crush it thoroughly in a mortar, knead well together in the hands, and use at once.

Bottles for Nerve Instruments



THESE Bottles are labelled respectively Sterilizing Fluid and Alcohol. There is no better method of keeping Nerve Broaches, and they make a handsome adjunct to your cabinet. Your instrument are always kept in a sterile solution, and if Lysol is used your Broaches will never rust.

Set of two Bottles in Cardboard Case, 90 cents

Claudius Ash, Sons & Co., Limited

Ash's Medicine Bottles

Made in England

A NICE assortment of these bottles all labelled, makes a good impression. The labels on these bottles are burned on and are therefore practically indestructible.

We carry a good assortment of these labelled for the most popular drugs, but we will have any labels burned to your order.

In neat cardboard box, Each 60 cents.

Claudius Ash, Sons & Co., Limited

Ahs's Cone Socket Mirrors

NO Cone Socket Mirrors have ever been placed on this market, of a like quality at so attractive a figure, and at the published price are excellent value.

Large, Small, Medium
Plain and Magnifying

Each Mirror in neat Carton - - 40c. each

Ash's Plain Metal Handle Mirrors

TO those Dentists who desire a FIXED HANDLE Mirror of an inexpensive grade, we offer these glasses.

The sale for them has been very large and the satisfaction given is very gratifying.

LARGE, SMALL,
MEDIUM
PLAIN and MAGNIFYING

50 Cents Each

Claudius Ash, Sons & Co., Limited

Porcelain Trays

Drawer of Allan Table with six large and three small Porcelain Trays—about half size.

Porcelain Trays, each - 15 cents.

Claudius Ash, Sons & Co., Limited

Porcelain Trays—*Continued*

Divided Down the Middle. For Long Handled Instruments.

The two small sizes of Porcelain Trays for small instruments and useful sundries have been so favorably received by the Profession that we have decided to add the size here illustrated to our stock for long-handled instruments.

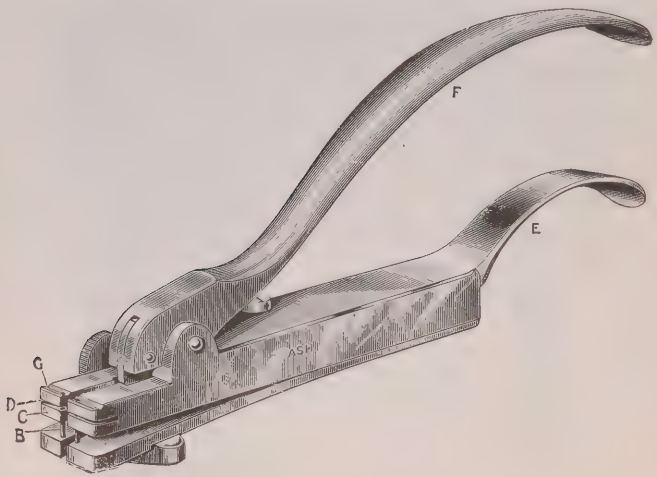
It is made to fit the drawer of Allan's Bracket Table, the outside dimensions being $7\frac{3}{4}$ in. long, $4\frac{3}{4}$in. wide by $\frac{3}{4}$in. deep, but it can be lifted out of the drawer if desired and used in any situation most convenient to the operator.

It is perfectly aseptic, and practically equal to new each time it is cleaned.

Price each - 40 cents.

Young's Adjustable Perforators

FOR PUNCHING TWO HOLES AT ONCE.



A—Screw which holds the back plate that clamps the pins.
B—Pins.
C—Intermediate Plate with holes that supports and stiffens the pins.
D—Slotted recess into which the metal backing is placed.
E—Lower Level.
F—Upper Level.
G—Groove in upper plate with holes into which the tooth to be backed before punching the backing.

Mr. Young claims that his tool secures, rapidly and with mathematical precision, exact correspondence between the holes in the metal plate used for backing teeth, and the pins of the tooth to be backed. It provides also for the quick and easy disengagement of the plate from the perforating pins after punching. The difficulty of separating, without twisting or injuring the perforated plate (the greatest obstacle to punching two holes at once), is entirely removed.

The risk of fracture in backing teeth is reduced to a minimum.

No measuring is required. The tooth is its own gauge, virtually punching its own holes.

Price, with Set Screw..... $5.50

The Solbrig-Platschick Press

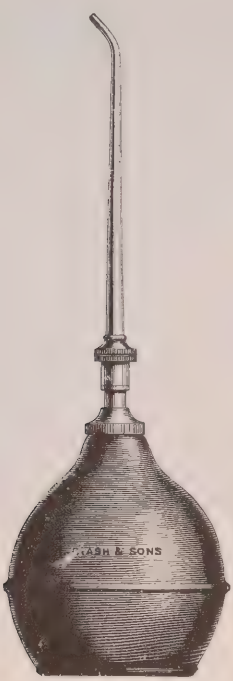
THIS cut represents THREE aluminum Dentures, cast on this machine. It will be noticed that these three dentures are cast through ONE sprue.

This machine is adapted for use for all sizes of work. The quality of metal it turns out has never been equalled in casting.

Complete with Furnace and Blow pipe,
Price - $60.00

Claudius Ash, Sons & Co., Limited

Ash's Fig 2 Chip Syringe



THIS Chip Syringe has been so long and favourably known that it needs no further description, other than to advise you that it is as well made as ever and will outlast all other kinds.

Price	- -	$1.00
Extra Bulbs	-	.65

7¼ inches

Hunt's Fig 1 Self-Filling Warm-Water Syringe

Original Form

From Pattern furnished to us by Dr. W. A. HUNT, of Yeovil in 1870

THIS Original Form of Dr. Hunt's Self-Filling Warm-Water Syringe is known all over the world, and Dr. Hunt sets forth its advantages in these few simple words:—

"The syringe with the spring compressed, as shown in the illustration, is put into a tumbler of warm water; thus when the Operator wants to use it the barrel is full of warm water immediately ready to his hand.

"Those who treat teeth are fully alive to the need of water in their syringe which is comfortably warm."

Syringe, nickel-plated with screw-off curved nozzle and leather plunger - $2.25

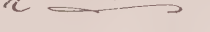
Ash's Dental Rubbers

Unapproached for

Excellence, Purity, Strength, Elasticity and Density

To mark the genuineness of our Rubbers, the face of every box and envelope which we supply bears this signature and monogram—

and one of the pieces of cloth in which each sheet of Rubber is packed bears this signature—



n addition to the name of the Rubber. Always ask for ASH'S when ordering our Dental Rubbers.

Important

THE best results are obtained with Dental Rubbers when it is packed in very small pieces.

Extremes of temperature, especially cold, render it tough in time, and it is then not so easy to pack as new Rubber.

The toughness in no way effects the quality, and the packing is not difficult if the Flask is thoroughly warmed and the Rubber is softened on the Hot-water Plate—on no account should dry heat be used.

We guarantee full weight in every box or envelope of Rubber of our manufacture, exclusive of the tracing cloth in which it is packed.

CLAUDUIS ASH, SONS & CO., Limited

SEND us a Mail Order for a Trial Package of C. A. S. New Hydraulic Cement.

Double Portion Package - $2.50
Six Color Package
$12.00

Claudius Ash, Sons and Co. Limited

The Pelton and Crane Company

Electric Sterilizer

No. 10

Price
110 Volts, $24.00

Price
220 Volts, $24.00

Boiler---11 in. by 5 in. by 3 in.---affords ample room for sterilizing long handled instruments, forceps, etc.

Cover of boiler raised and lowered by lever at right end.

Large perforated tray for instruments lifts with cover.

Small perforated basket for burs, etc. bangs from hook on cover or may be set in large tray.

A Porcelain Handled Drain Cock is fitted to left end of boiler.

A "Three-Heat" snap type switch conveniently placed in the lower front edge of the Sterilizer controls the heat.

The positive Automatic Safety Cut-Off insures against burn-outs should the Sterilizer boil dry.

Entire Heating Unit easily detachable.

ASK TO SEE THIS STERILIZER
AT YOUR DEALERS'

The Pelton & Crane Company
244-56 Harper Ave. Detroit, Michigan, U.S.A

Phone North 1082
Residence: Phone Park 1226

Crown Dental Laboratory

Specialists in Bridge Work

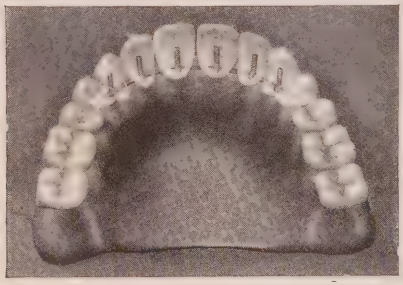
QUALITY! PROMPTNESS! CLOSE PRICES!

We Give You All These

You get full value for every Dollar spent with us

Bridge Work Mr. Hutson, the manager, attends to all this work himself, thereby protecting the dentist from the imperfect efforts of amateurs.

Plate Work We have a fine Plate Department, headed by an expert mechanic, who employs only the best assistants.



We are making a specialty of these Vulcanite Dentures, with Baker's Anchor Bar and Ash's Dowel Crowns, as shown at the recent Ontario Dental Society Meeting.

Price List on Application

All work under personal snpervision of A. C. Hutson.

Rooms 1, 2 and 3 Claudius Ash Building

11-13 Grenville Street Toronto, Can.

Prosthetic Dentistry

...Important Notice...

KNOWING how many Dental Mechanics will be compelled to join the Army, we desire as far as possible to help the members of the Dental Profession with their Mechanical Work during this grave crisis.

E. ALLINGHAM
324 Broadview Ave.
TORONTO
Ontario

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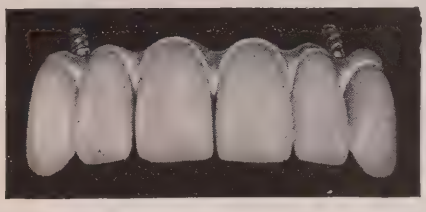
4040
LONG DISTANCE
CONNECTION



The Bridgework of Modern Dentistry

rests securely and serenely in the human mouth, *eluding detection*---because the suggestion of vulgarity, the display of gold hitherto apparently inseparable from the art of dentistry, is now eliminated.

It is made with GOSLEE TEETH. It holds a mirror to nature. It commands the admiration of patients. The patient equipped with Goslee Bridge Work is a permanent, practice-building influence for the doctor who did the work.

Send for "The Goslee Schoolmaster" and Catalog of Goslee Molds

Consolidated Dental Mfg. Co.

137 Washington Place, New York

The Avoidance

or disregard of duty by the patient when full co-operation in pyorrhea treatment is demanded by the dentist, can often be traced to the patient's *inability* to *recognize* results in the *auxiliary treatment.*

PYORRHOCIDE

POWDER

does not encourage disinterestedness—because, when it is used in the treatment of pyorrhea, the results are always beneficial, and they are always visible. Confidence, desire and action are created when therapeutic efficiency is recognized.

Results are conspicuous when PYORRHOCIDE POWDER is used in the treatment of *soft, bleeding, spongy, receding gums*—before and after instrumentation—because it allays soreness and inflammation. They are conspicuous in the *cleansing* and *polishing* of the teeth—because mucoid plaques or films and the accretion of salivary deposits are removed. All of these are important factors in a *co-operative home treatment* for

PYORRHEA

The Dentinol and Pyorrhocide Method of preventing and treating pyorrhea. DENTINOL (antiseptic-germicide) applied by the dentist. PYORRHOCIDE POWDER used by the patient. Improved Dentinol Pyorrhea SCALERS, Improved Dentinol Prophylactic FILES. Dentinol Perfect SYRINGE (flat tip). Ask for descriptive literature.

THE DENTINOL & PYORRHOCIDE CO.
Incorporated
110-112 West 40th Street New York

...GOLD and...
Your Laboratory

My Gold Work to the Dental Profession is NOT made to a PRICE.

The quality of the Gold I use is never lowered.

All Crowns made of 22 k, Gauge 29. All Solder is 18 k. Fineness guaranteed.

I guarantee satisfaction and give you in the finished product, what your money entitles you to.

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11-13 GRENVILLE STREET

Phone N. 5776 TORONTO

PALLADIUM

A metallic element associated with the Platinum group. It is found in Platinum ores and also in the native condition and associated with Gold and Silver in the Brazilian Gold bearing sands. It is a ductile metal of silvery lustre. Its melting point is approximately between 3060 and 3100 Fahrenheit — *Extract from Encyclopedia Britannica.*

...plus...

PURE GOLD

(24 kt.)

This is the composition of the metal used for pins in....

JUSTI P.M. TEETH

(PRECIOUS METAL)

The metal that is rapidly replacing pure Platinum for teeth pins. ¶ They are from 30 to 46% lower in price than our Platinum pin teeth.

WE GUARANTEE THEM

Your Dealer can supply you

H. D. JUSTI & SON

Philadelphia Chicago

Smith's Copper Comes to Canada

A great many Canadian Dentists are using Smith's Copper Cement and have been using it for some time. ¶ Evidently you like it immensely---for you have been paying a stiff price for it. ¶ So we think you'll be glad to know that Smith's Copper has "come to Canada." ¶ Canadian offices and factories have been established in Toronto. ¶ Which means you can **now** buy Smith's Copper from your dealer at prices paid by dentists in the States. ¶ But---Smith's Copper doesn't compete on a price basis. You who have been using it know that it isn't obliged to. Like good dentistry it is sold on the basis of quality only. ¶ You can "feel quality" with your spatula when you mix Smith's Copper. ¶ And Furthermore---it is the only antiseptic cement---germicidal, therapeutic, sedative---which in spite of the copper in it.

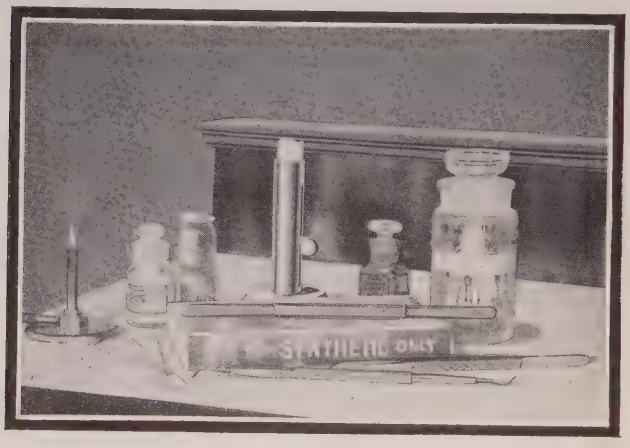
WILL NOT DISCOLOR IN THE MOUTH

Ask Your Dealer about the New Prices.

Lee S. Smith & Son Manufacturing Co.

449 Spadina Avenue Toronto, Canada

Russell G. MacDonald, *Canadian Manager*



This is the way to do it

GIVEN the proper instruments, particular shades of powder, necessary liquid, cavity lining, cocoa butter, celluloid strips and shade guide, you possess all the requisites necessary for the making of a perfect restoration with de Trey's Synthetic Porcelain.

See that your cavity preparation is made with the utmost care. Start your mix immediately, being sure that its final consistency is right. Use the instruments which have been found particularly adapted for this type of work and exercise your best skill to mold the material so that it will reproduce every contour of the natural tooth.

In this way you will find that de Trey's Synthetic Porcelain simulates nature to perfection and that in translucency, color and crushing strength it is incomparable.

"Advanced Uses"
A book just issued on de Trey's Synthetic Porcelain.
Seen it?

THE L. D. CAULK COMPANY
PHILADELPHIA

LABORATORIES:
Milford, Del., U. S. A. Toronto, Canada

DENTAL DEPOTS
Philadelphia, Pittsburgh, Huntington, W. Va.

Unpolished, imperfect margins. Not even extended to include affected enamel, much less immune areas! How can it last?

How Long Do Your Amalgam Fillings Last?

DID you ever stop to think that your patient expects an amalgam filling to last, not a few months, one or two years—but a lifetime?

What are you doing to bring your amalgam work up to the standard which is making reputations every day for some of our best men?

Are you using a high silver-content alloy like Twentieth Century Alloy Perfected; are you amalgamating it in the proper mortar and pestle so that amalgamation may be perfect? Are you preparing your cavity with the greatest care and carving every facet and contour with the utmost skill?

If so, you are demanding an adequate fee for such work and your patients are glad to pay it because such amalgam fillings in posterior teeth are beyond a doubt the superior even of gold.

Twentieth Century Alloy Perfected—for Permanence

THE L. D. CAULK COMPANY
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LABORATORIES:
Milford, Del., U. S. A. Toronto, Canada

DENTAL DEPOTS
Philadelphia, Pittsburgh, Huntington, W. Va.

C-2

Adopt It

Before You Have to Come to It

TRUBYTE SERVICE enables you to reach your professional ideal in denture making.

It is not "easier" than "slip-shod" methods, but the results are more satisfactory to your patient and you are able to obtain a professional fee, because the denture is "easier" to wear and "looks better."

The time of careless impressions and "mush" bites, old form teeth and plane-line "articulators" (more properly called occluding frames) is swiftly passing.

The public is being educated to the "newer dentistry" and is quick to note symtoms of stagnation and equally quick to recognize progressive methods.

Why Not Adopt the Trubyte System Now and Get Its Benefits?

THE DENTISTS' SUPPLY COMPANY OF NEW YORK
SOLE MANUFACTURERS OF TRUBYTE TEETH
220 WEST 42ND ST. NEW YORK

Ash's C.A.S. Hydraulic Cement

(Oxyphosphate of Zinc)

An Indispensable Aid

A good oxyphosphate cement is an indispensable aid to the modern practitioner. Of all the Osteoplastic Cements introduced none has proved so fit and safe for general use as Oxyphosphate of Zinc, or so suitable for being pressed into service in nearly every case with which the Dentist has to deal.

To the many excellent qualities of C. A. S. Cement have now been added hydraulic properties of the highest degree. The research necessary for this has also developed stickiness and smooth working qualities superior to any cement on the market at the present time.

The manipulation of C. A. S. Cement has thus been simplified to a degree that will give a perfect result in every case where the following

Directions are accurately followed

Place a few drops of liquid on a clear glass slab, near it place the necessary amount of powder, add the same to the liquid in small amounts and spatulate only enough each time to produce uniformity of mixture. Continue this procedure until the mix is thickly plastic and well past the thin creamy stage. Apply and allow to set for four or five minutes or until hard, before subjecting to moisture.

REMEMBER—Mix fairly thick and do not over spatulate.

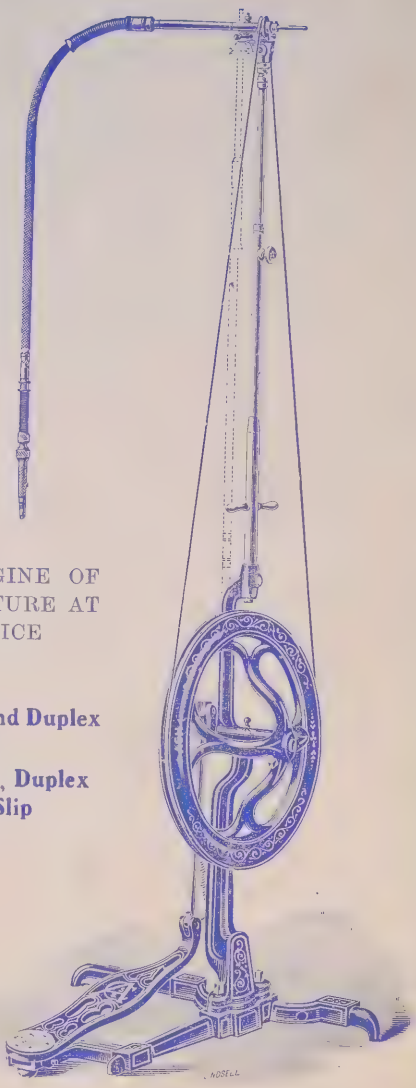
Supplied in the following shades:

Pearl Grey, Light Yellow, White Grey, Yellow, Brown

Double Portion Package	$2.50
Six Color " "	12.00

CLAUDIUS ASH, SONS & CO., Limited

Ash's C Style Foot Engine



A GUARANTEED ENGINE OF OUR OWN MANUFACTURE AT A MODERATE PRICE

With No. 7 Hand Piece and Duplex Spring, $34.00

With No. 7 Hand Piece, Duplex Spring and No. 2 Slip Joint, $39.00

Cash Discounts allowed from above Prices

Volume 7 Number 2

SEPTEMBER - 1917

Ash's Canadian Quarterly

Issued from Toronto, June, September, December, March

Claudius Ash, Sons & Co., Limited

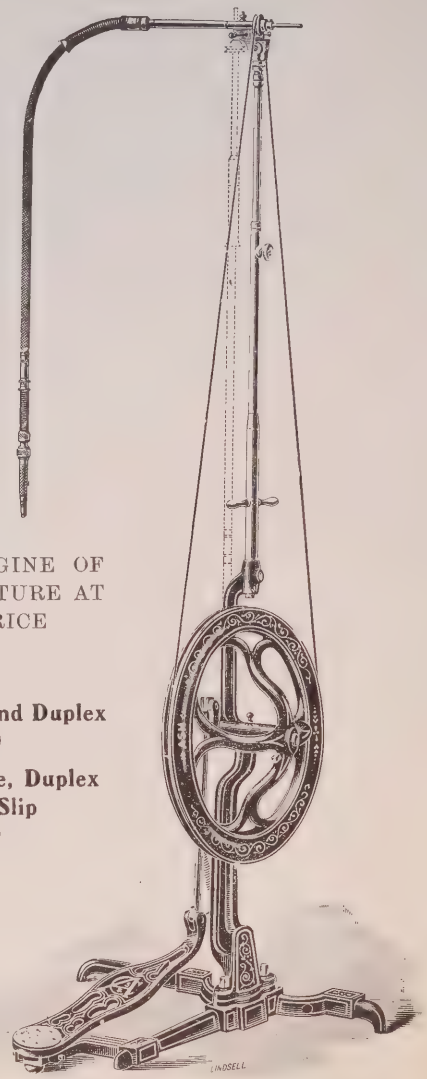
CANADIAN BRANCH

11-13 Grenville Street, Toronto, Canada

Main Depot London, W., England

STUDENTS' EQUIPMENTS

Ash's C Style Foot Engine



A GUARANTEED ENGINE OF OUR OWN MANUFACTURE AT A MODERATE PRICE

With No. 7 Hand Piece and Duplex Spring, $34.00

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CONTENTS

SEPTEMBER, 1917

Advertising Section - - - Page 2

ORIGINAL MATTER—

German Kultur as to Private Property Rights - - - Page 3

All Men are Dentally Fit in Canadian Army From DOUGLAS T. ROBERTSON, Special Correspondent - - Page 4

The Ivory Cross - - - Page 6

Advertising Section - - - Page 9

SEND us a Mail Order for a Trial Package of C. A. S. New Hydraulic Cement.

Double Portion Package - $2.50
Six Color Package
$12.00

Claudius Ash, Sons & Co.
Limited

3

Ash's Canadian Quarterly Circular

Vol. VII. TORONTO, SEPTEMBER 1, 1917 No. 2

German Kultur as to Private Property Rights

From the Annual Report of the Board of Directors of Claudius Ash, Sons & Company, Limited, London, England, August 17th, 1917, we copy the following:

From information received it appears that the company's business in Germany, Austria-Hungary, Turkey and Belgium has been carried on for a considerable period since the outbreak of war under supervision of the respective governments, and recently in Germany the balance of stock, book debts, etc., has been offered for sale by order of the German Government and purchased by a new company. The business in Belgium has also been ordered by similar authority to be wound up. Particulars of the company's claim in respect to property in the countries with which we are at war have been lodged with the British Government. Net assets in Germany, Austria-Hungary, Turkey and Belgium, exclusive of good-will and of all local trading in those countries since 31st December, 1913, £217,113 19s. 8d.

All Men are Dentally Fit in Canadian Army

From Douglas T. Robertson, Special Correspondent.

London, Sept. 3.—Canada's soldiers have been fairly "eating up" the Germans, and oddly enough no small part of the vigor and fitness requisite for that figurative operation has been due to the splendid condition of the teeth of our men. No man in the Canadian forces need suffer with his teeth. Right to hand in the field he can get the best attention for nothing. Aching nerves are killed painlessly, cavities filled, and hopelessly gone molars and bicuspids replaced by excellent imitations. It is recognized to the full how essential are good teeth to the successful mastication of food, how essential to a man's general health.

"The Canadian army is the only army in the whole world that attempts to send its men into the field dentally fit," declared the president of the British Dental Society in a recent address. And indeed to Canada belongs the honor of having the first army dental corps in the world. The Canadian corps possesses 220 dental officers and some 400 men mechanics and orderlies.

One Million Operations.

Since coming to this country little more than two years ago the Canadian Dental Corps has performed almost one million operations, extracting, filling teeth, etc. Though the service in the field is excellent, it has been the plan, as mentioned above, to do most of the work in England, and so send men out to France with sound teeth. Everything is free except gold work, and in such cases the bare value of the gold is charged for, and if the soldier doesn't happen to have the money assessed against him it is put in his pay sheet. But vulcanite plates are largely used, and these, like everything else, are free. Half crazy with a raging tooth, whose nerve has suddenly roused up, many a man is keen to have it out, but stringent regulations prevent a too free extraction of teeth, and if it be at all possible the aching grinder is saved and treated. Afterwards the man is very thankful. Many a Canadian soldier has had dental attention which he would likely never have received at home even if he could have afforded it.

Jaws are Required.

Teeth are frequently injured in face wounds, and many cases of broken jaws come before the Dental Corps officers. All jaw injuries are now treated at the Ontario Hospital, Orpington, which has an average of from 75 to 100 cases. Great success has attended this branch, and men with badly fractured jaws have left hospital almost completely restored. The mode of repair is to fit the fractures together, take a cast, and from the cast to make a splint of Victoria metal, in which the broken bones are encased until knitted. Bone grafting from shin bone and beef bone in cases where the jaw has been seriously shattered has effected marvellous results.

"Trench teeth," an inflammatory malady of the gums, is epidemic at the front sometimes, especially in the cold, wet months, though there is only one per cent. in England. In such cases the sick ones are segregated for a few days, until treatment eradicates it. All the sick men's tooth brushes are destroyed, as the malady, though a slight one, is very catching. A cure is effected usually in about six days, and though the afflicted do not eat or sleep with their well comrades, their indisposition does not prevent them from drilling with the rest.

Royalty Treated.

At present no kind of dentifrice is among the issues to the troops. Each man is free to decide what he wishes, if any, and to buy it for himself. But it is expected that a regulation tooth soap, composed of the most approved mouth antiseptics, will shortly be issued at regular intervals to every man, free.

Not long since a certain very august personage, long resident in Canada, had reason to extoll the skill of Canadian dentists. Worried by an intermittent pain, the personage had consulted a skilled London man, who relieved it for the time being. However, it came on again, and its location proved quite baffling. Happening to be down at Taplow and suffering intolerably at the time from a racking recrudescence of the pain, H.R.H. dropped into the dentist's office at the Duchess of Connaught's Canadian Hospital and asked the dentist to see if no relief were possible. At once the dental officer perceived the exposed nerve which was causing all the misery. Then with deft hands cocaineized antiseptics were applied, and the royal patient arose from the chair free of pain and profuse in his gratitude.

"The Ivory Cross"

This National Dental Aid Fund provides dental aid for—

Discharged Service Men,

Home Army Men,

Mercantile Marine,

Necessitous Poor (including Mothers and Children).

The War Office and the Admiralty have made their own arrangements for the Overseas Armies and the Navy proper.

The Council appeals for money to carry on the work of "The Ivory Cross."

Cheques should be addressed to the Hon. Treasurer, at the offices of "The Ivory Cross," 10 Conduit Street, W. 1; or the Hon. Bankers, Messrs. Barclay's Bank, Ltd., 1 Pall Mall East, S.W. 1.

'Phone: Mayfair 1377.

Hon. Treasurer: Sir Herbert Bartlett, Bart.

It is strange indeed that we need a world's war in order to emphasize the necessity of dental aid for large classes of the population. Even a deluge of statistics on dental diseases, and widespread publicity of the prevalence of caries and other diseases incident to this scourge, have left the Government comparatively cold—almost indifferent to the suffering of large numbers of the people.

No man, no woman, no child can be said to be healthy with diseased teeth, untended mouth, and without artificial dentures where such are indicated through the loss of teeth. This applies to those members of the community who are still able to live in a more or less normal fashion; although there be not many who are unscorched by war's fiery ordeal, and who feel fretful and dejected over the long and weary path to victory.

Much more, however, does it apply to the four categories of people who are to be recipients of dental aid from "The Ivory Cross." The rank and file of the discharged service men in most cases could not possibly find the means to obtain private treatment; and even if these war-worn, maimed and disabled heroes could and would make the necessary sacrifice, our indebtedness to their service makes it a religious duty to help them.

The Home Army men, with their scant and, in comparison with our Dominion soldiers, beggarly pay, must eloquently appeal to our sense of justice to set their mouths in order where necessity demands.

The Mercantile Marine, likewise—who, in addition to braving the elements and, in winter, bitter cold, are day and night under the menace of the most deadly and pitiless invention of a military caste, the U-boats of the German Empire—have strong claims on our sympathies. Were it not for the vigor and bravery of these gallant seamen, the nation, instead of being fed in an almost pre-war manner, might be starving.

The necessitous poor are always with us, only their case has been made worse by war, and therefore they also are deserving of dental aid—more so, perhaps, because the mothers and children, who are included, in many cases have lost their bread-winner in battle, or he is still doing his duty for his country as a soldier.

It is with confidence that we appeal to our readers to do their part in a scheme which will greatly benefit the classes named; and our self-respect will be increased when we reflect that we have done a little to help a good cause.

On June 12th, the Right Hon. the Lord Mayor, Sir William Dunn, Bart., presided over a meeting at the Mansion House to initiate and forward this movement; and several speeches were made by representative men, who spoke many home truths. Among the speakers were two distinguished actresses, Miss Lilian Braithwaite and Miss Irene Vanbrugh, who made successful appeals for funds.

Lieut.-General Sir Francis Lloyd, who commands the London District, told us that when on active service in the past he had seen horrible results from the want of dental treatment. He believed that before the war, by the ruling of a General Officer commanding a district, a man could be treated up to the extent of £2. He stated that there was very little dentistry in the Army, and "the only people who were supplied with dentures were sergeants." So it almost seems, since privates were excluded, that even these dentures were supplied, not for masticating, but that sergeants might utter their commands.

In the course of the war, however, there has come a salutary change, and the medical authorities have informed the Com-

mander of the London District that at this moment "all men who are going into the actual fighting line are supplied with false teeth if necessary."

Men, though in khaki, in any other category are not supplied; and Lieut.-General Sir Francis Lloyd was told that even the actual fighters would not have received dentures "except for the accident of the greatest war that the world has ever seen, and their being obliged to be in uniform." He does not understand the morality of such an arrangement. No more do we. "As usually happens," declares Lieut.-General Sir Francis Lloyd, "in this country, voluntary effort does everything. Miss Fletcher —great praise be to her!—came forward and created a fund—the Soldiers' and Sailors' Fund—and now she has created the National Dental Aid Fund."

Captain Sir H. Acton Blake, Deputy Master of Trinity House, said he was always very proud whenever his name was linked with the Mercantile Marine. Without it, he declared, "it would be impossible to hold together all the links of Empire." He considered we owed them an immense debt. "But for these men very few people in the United Kingdom of Great Britain and Ireland would require any teeth at all, because there would be nothing for them to eat." He thought that ought at least to quicken the sympathy in such a case as this between the donors and the recipients. He pointed out that many of the men went in ships without a doctor, to say nothing of doing without a dentist.

Sir Arthur Newsholme, who spoke on behalf of the necessitous poor, remarked that more and more poverty was being seen to be the result of disease, and a very large portion of the total poverty of this land was the result of disease. He said: "Much has already been done for school children in connection with the school medical service, but only a fraction of what needs to be done." The Local Government Board, he declared, were prepared to subsidize to the extent of half the total expenditure the provision made for providing for the teeth of expectant and nursing mothers, and young children under school age. He commended "The Ivory Cross" to the charge of his hearers.

Sir St. Clair Thomson emphasized the need of mastication, and with humor and apt quotation supported "The Ivory Cross." He made reference to pyorrhœa alveolaris, and described the bad effects of the disease on general health.

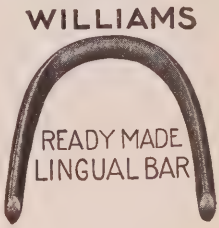
Mr. W. H. Dolamore and Mr. W. F. Mellersh also spoke.

The former drew attention to the fact that the British Dental Association was the first to collect statistics with regard to the need of dentistry for children, showing that only 25 per cent. of children of twelve years of age had no caries of the teeth. He traced the birth of school dentistry, and lamented that there were no dentists in the Army at the beginning of the war. He also compared the Canadian and British Armies in regard to the numbers of dentists employed for each. The result was not to our advantage. A pathetic instance in his speech was a reference to the loss of his son in battle.

Mr. Mellersh said: "In peace too many of us forget the necessity for being prepared for war. The Hun, however, was so fully equipped that he started his operations with two hospitals specially prepared for the treatment of jaw injuries." It was hoped to make "The Ivory Cross" the equivalent for dentistry of the Red Cross in war, and in peace the emblem of the physical betterment of the masses.

The appeal from the financial side was extremely satisfactory, £617 11s. 6d. having been subscribed and collected.

WILLIAMS READY MADE LINGUAL BARS are properly bent, contoured, and semi adjusted, so that with very little manipulation they can be made to fit any case. Made with both plain and corrugated ends.



Gold Case Bars

Made of WILLIAMS OVAL LINGUAL BAR, 18k. and guaranteed for 10 years.

Gauges (8x12—9x14—10x13) - $1.25 each.

Made of WILLIAMS OVAL LINGUAL BAR 18k. 1/5 the thickness of the bar, and guaranteed for 20 years. Guage, 9 x 14, $1.50 each.

Solid Go d Bars

Made of WILLIAMS 18k. gold, 10 per cent. platinum. Guage 9 x 14, $4.00 each. Guage, 10 x 13, $3.50 each.

Made of WILLIAMS 16k. gold. 2 per cent. platinum. Guage, 10 x 13, $2.00 each.

Your Dealer or

The Williams Gold Refining Co.

REFINERS TO THE DENTAL TRADE

682 Main Street - - - Buffalo, N.Y

"Getting By" or Getting Results?

DRIFTING in the twilight zone between success and failure, many a dentist to-day wonders that the best he can say for himself is summed up in these damning words, "Oh, I'm getting by."

One of the causes of this deplorable condition is the failure of the dentist to realize the pregnant truth that his best work bears no constructive influence unless it is permanently successful, which it cannot be if he does not employ materials that are scientifically right.

These remarks are prompted by a consideration of the fact that innumerable fillings are ruined and useful teeth murdered by the use of mercury that is not chemically pure.

The dentist who uses a standard alloy—scientifically balanced in its ingredients—and then proceeds to amalgamate it with mercury not chemically pure is doing futile work—work that cannot give satisfaction nor gain good professional repute.

Taking pains to buy an alloy of known quality and taking no pains to see that the mercury used in connection with it is chemically pure is as foolish as spoiling a good skin with a bad soap or a good stomach with bad food.

Many dentists are misled by mercury that is labelled "distilled." Dr. Thomas P. Hinman, former President of the National Dental Association, says, "You cannot secure good work in amalgam unless you start with pure mercury and you cannot make mercury pure by simple distillation, it must be done by distillation and by a chemical process also. You buy at the drug store some mercury and mix your amalgam with it and wonder why you do not get results and why the pulp dies."

Beware of drug store mercury and of the kind supplied by your dealer marked "distilled." You can get results with amalgams, so far as the mercury is concerned, only by using mercury chemically pure.

MERCURY CHEMICALLY PURE.

Consolidated Mercury is Chemically Pure.

Look for the Trade Mark

Sold by...

CLAUDIUS ASH, SONS & CO., Limited

11 GRENVILLE STREET - TORONTO

Carter's Celluloid Strips

THESE are the first Celluloid Strips that were put on the market for DENTAL USE, and they are still the best although they sell at a lower price than others.

They are invaluable in Silicate Cement Work, and for Matrices.

Thin and Extra Thin

PER BOX - - - - 60 CENTS

Claudius Ash, Sons & Co., Limited

The Genuine, Original

Stents Composition

The Pioneer of all Impression Compositions has now been before the Profession for

SIXTY YEARS

(It was introduced in 1857)

and still holds the premier position as

: : : THE BEST : : :
IN THE WORLD

for taking impressions of the mouth and : : for many other useful purposes. : :

ATTEMPTS have been made to imitate STENTS COMPOSITION; even to the color of the box in which it is packed, and the color of the label on the box, have been copied, for the purpose of deceiving the unwary; hence it is necessary to say that every cake of genuine, original STENTS COMPOSITION bears the Trade Mark, which consists of the outline of two Impression Trays, and the name

STENTS

There is no other genuine, original STENTS COMPOSITION.

Stents Composition—*Continued*

TO BE OBTAINED OF ALL DENTAL DEALERS

The label on every box bears this signature:

BEWARE OF SPURIOUS IMITATIONS

The geniune, original STENTS COMPOSITION is prepared in round cakes, pink or yellow in colour, and supplied in half-pound boxes.

Price per lb., $1.25 ; 3-lb. lot, $3.40 ; 6-lb. lot, $6.55 ; 10-lb. lot, $10.25.

Stents Renovating Composition

This genuine, original STENTS RENOVATING COMPOSITION which is expressly prepared for mixing with used, discoloured composition to make as good as new, is prepared in round pink cakes, and also supplied in half-pound boxes.

Price per lb., $1.20

Sole Owners of the Original Recipe:

CLAUDIUS ASH, SONS & CO., Limited

5-12 Broad Street, Golden Square, London, W.

Canadian Branch 11-13 Grenville St., Toronto

Ash's Dental Rubbers

Unapproached for

Excellence, Purity, Strength, Elasticity and Density

To mark the genuineness of our Rubbers, the face of every box and envelope which we supply bears this signature and monogram—

and one of the pieces of cloth in which each sheet of Rubber is packed bears this signature—

in addition to the name of the Rubber. Always ask for ASH'S when ordering our Dental Rubbers.

Important

THE best results are obtained with Dental Rubbers when it is packed in very small pieces.

Extremes of temperature, especially cold, render it tough in time, and it is then not so easy to pack as new Rubber.

The toughness in no way effects the quality, and the packing is not difficult if the Flask is thoroughly warmed and the Rubber is softened on the Hot-water Plate—on no account should dry heat be used.

We guarantee full weight in every box or envelope of Rubber of our manufacture, exclusive of the tracing cloth in which it is packed.

CLAUDIUS ASH, SONS & CO., Limited

Ash's Dark Elastic Rubber

Purest and Strongest

TO obtain the best results with this product bear in mind that it is all "Pure Para" and contains no colouring matter whatever. It is necessary, therefore, in vulcanization to advance the heat very slowly and vulcanize for at least one and one-half hours.

There are imitations of this rubber offered to the profession, some going even to the extreme of copying the name "Dark Elastic." Refuse these imitations, as if Ash & Son's name is not on the box and linen back the product is not ours.

Price, per pound - -	$ 5.00
Price, per 5 pounds -	22.50

Direct or through your dealer.

Claudius Ash, Sons & Co., Limited

Ash's Repair Facings

Made in the patterns shown in booklet which can be had on application, and supplied in sets of 6, sets of 4, pairs and odd.

The three sizes here illustrated are intended to show the distinctive feature to which we wish to draw attention, viz., the oval cavity in the back of each.

They can be used for repairing nearly every kind of denture; they are easily applied, exceedingly durable, and can be quickly fitted—it does not take longer than from 10 to 15 minutes to fit one.

83

71

14

They are invaluable for repairs to Bridges, and in all cases of Plate and Crown work in which a flat tooth has to be replaced.

The oval cavity at the back of each Facing corresponds with the positions of pins in our Flat Pin Teeth. The Facings do not require backing, but can be applied to the backings of fractured or broken teeth when the broken portions of mineral have been removed from the backings.

IMPORTANT NOTE.

For attaching these Repair Facings to teeth backings, etc., **we recomcend our C.A.S. Cement,** or our **Inlay and Crown Cement.**

Price each - 25 cents

Claudius Ash, Sons & Co., Limited

Burlew's Cleaning and Polishing Disc

Patented Feb. 1917

"The Clean Way to Clean Teeth Clean"

A rubber disc with the cleaning and polishing materials incorporated into its substance eliminating the use of pumice or chemicals in cleansing the teeth. These discs will wear down to a rough furred surface and are intended to do so as this furred and knotty surface is a very valuable factor in removing stains and smoothing the enamel. The operator may use a polishing material if he desires to do so and the furred surface will hold it better than anything else and prevent the spattering and general discomfort incident to prophylactic work.

After a little familiarity with the article the practice of adding anything to the disc will gradually be abandoned. These discs will work more rapidly than anything you have ever tried. Green stain will disappear very quickly on application of the disc, which the operator will appreciate.

GOLD INLAYS, SILVER FILLINGS AND RIGGS DISEASE.

They are very valuable in polishing Gold Inlays and Silver Fillings; the disc going into the depressions and sulci as nothing else will.

In Riggs Disease they give a much desired smoothness to the enamel after removing deposits of tartar and do not tear and irritate the gums as a brush is liable to do. In addition, there is the advantage of not being obliged to have the patient rinse the mouth every few minutes, thus saving time. Occasionally you may find a case where the disc does not seem to work as rapidly as it should; this is due to the fact that the saliva is unusually thick and ropy and acts as a lubricant and prevents the disc from taking hold. In such cases run the disc over a stone to roughen the surface and wipe away the saliva with a piece of cotton. The material is of such a nature that a thin edge will not wear long, but if operator wants to get a thin edge to go between teeth, a stone held against the revolving disc will give it an edge in an instant. These discs are sold at a price that should enable you to use a new one on each patient, but, if desired, they can be sterilized without harm.

Price, Box of Thirty Discs, (wheel shape) - $1.35
Price, Box of Twenty Discs, (cup shape) - - 1.35

Sole Sales Agents

J. F. JELENKO & CO.

1 Union Square - New York, N.Y., U.S.A.

For Sale by

Claudius Ash, Sons & Co., Limited

To the Dental Profession

We draw your attention to a new method by which the Ash Dowel Crown with the Anchor Bar and Posts gives a restoration and tongue space in the oral cavity with the Anterior Teeth, which is impossible with any other Tooth in Vulcanite dentures.

Ash Crowns mounted in this way are not only stronger than Cross Pin Teeth, but give the Natural Bulbous lingual surface the same as Natural Teeth, providing a full striking surface for the tongue,—a freedom for the tongue also in the oral cavity not permitted in any other denture.

Dentures of this character are the greatest improvement in Vulcanite Plates since vulcanite was first introduced.

DIRECTIONS IN MOUNTING

1. Remove Posts from bar.
2. If necessary and case requires, grind a slight depression in the sides of each Crown to receive the bar.
3. Grind the end of post (but not the sides) to fit the pin-hole snugly.
4. Mount each Crown in waxing up, with pin in position, leaving pin in Crown.

DIRECTIONS AFTER SETTING UP AND INVESTING.

5. Boil out the wax carefully, taking care not to wash out the posts.
6. Remove the Posts IN ORDER in which they are to go back.
7. Adjust the bar to CONFORM to the necks of Crowns.
8. Replace Posts on bar in order in which they were taken from Crowns.
9. Pack lightly a pin head of Rubber in each post-hole.
10. Warm the flask so as to soften the Rubber in holes of Crowns.
11. Insert the Posts and bar, and carefully press bar and pins to position.

NOTES

1. Every Ash Dowel Crown has the pin-hole undercut, and both the hole and Dowel Chamber roughened so as to have retention for Vulcanite, being specially prepared for this work.

Do not be misled into using other Crowns with glazed pin-holes and no undercut, or you will spoil a good method.

2. In mounting the Crowns on the wax you can allow for a separation between each Crown, or a slight tilt of the lateral to make case more natural, or set irregularly, if desired, as the bar gives its added strength to each anchored pin; and Crowns mounted this way have twice the strength of Cross Pin Teeth.

3. Should a Crown be broken from the Plate the Post stands, and you have anchorage for cementing a new Crown to the post the same as you would to a root in Crown work, thus eliminating revulcanization and giving a quick and most satisfactory repair.

Posts for Anchor Bar are made smaller for Lower Incisor Crowns having a smaller post hole than Upper.

In ordering specify Upper or Lower.

PRICE

6 Dowel Crowns - - - - - -	$1.30
8 Diatoric Posteriors - - -	
1 Baker 14k. Gold Cased Bar and 6 Posts - - - - - - -	$1.10
	$2.40

CLAUDIUS ASH, SONS & CO., Limited

Ash's Dowel Crowns

The following five pages, which show some of our moulds of Ash's Detached Post Crowns, are well worth close examination and study. The illustrations will be valuable as a reference and guide in ordering by mail. Keep these illustrations in a convenient place, as, of course, you will become a user of them when you are conversant with their superiority over any of the existing dowel crowns.

The price, too, is a great consideration—make a note of it—

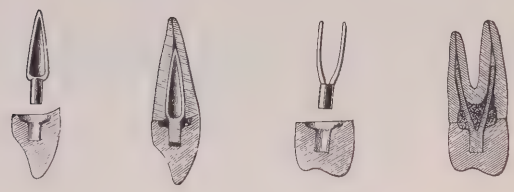
15 cents each.
$12.00 per hundred.

Outside of the recognized value they have, as being made of our celebrated mineral, positively the only body that can be *successfully* polished after grinding, the moulds are the most serviceable. Notice in the Anterior and Bicuspid teeth, the provision for roots that are large bucco-lingually.

Note also the recess in the crown that takes the post. It is etched in each and every crown, assuring you of perfect cementation. We are also making now the labial aspect of our crowns much longer than shown in the illustrations. This improvement is obvious.

Claudius Ash, Sons & Co., Limited

Ash's Dowel Crowns



The principal advantage of a detachable crown, as contrasted with a crown having a pin fixed in the mineral, lies in the facility afforded for grinding the base of the crown to fit the root and for bending the dowel to the angle required to obtain a correct bite.

In Ash's Dowel Crowns the measurements and shapes of the bases are such as to fit the greatest number of average roots.

The dowels are made of the best quality Dental Alloy, and are much more rigid than Platinum; they are strongest at the part which has to bear the greatest strain, viz., where the crown joins the root. Those intended for bifurcated roots of Bicuspids are extremely strong; at the same time the pin ends are sufficiently pliable and thin to allow them to follow the bends of root-canals. We need hardly emphasize the serious objection that exists to the insertion of a base metal pin in a natural root.

Made in sets of six—Centrals, Laterals and Canines in thirty sizes and patterns, Bicuspids in fifteen sizes, and Molars in fourteen sizes; other sizes in preparation.

Each		$0.15
100 Crowns		.12
Single Pins, in two sizes, in Dental Alloy	each	.55
Bifurcated Pins, in Dental Alloy	each	.65
Base Metal Pins	each	.07

Ash's Dowel Crowns—Uppers

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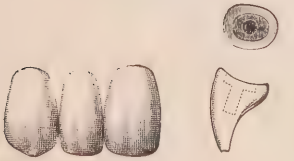
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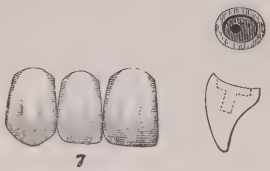
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Ash's Dowel Crowns—Uppers

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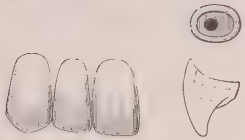
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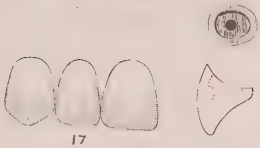
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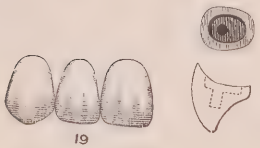
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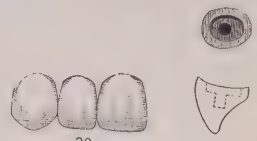
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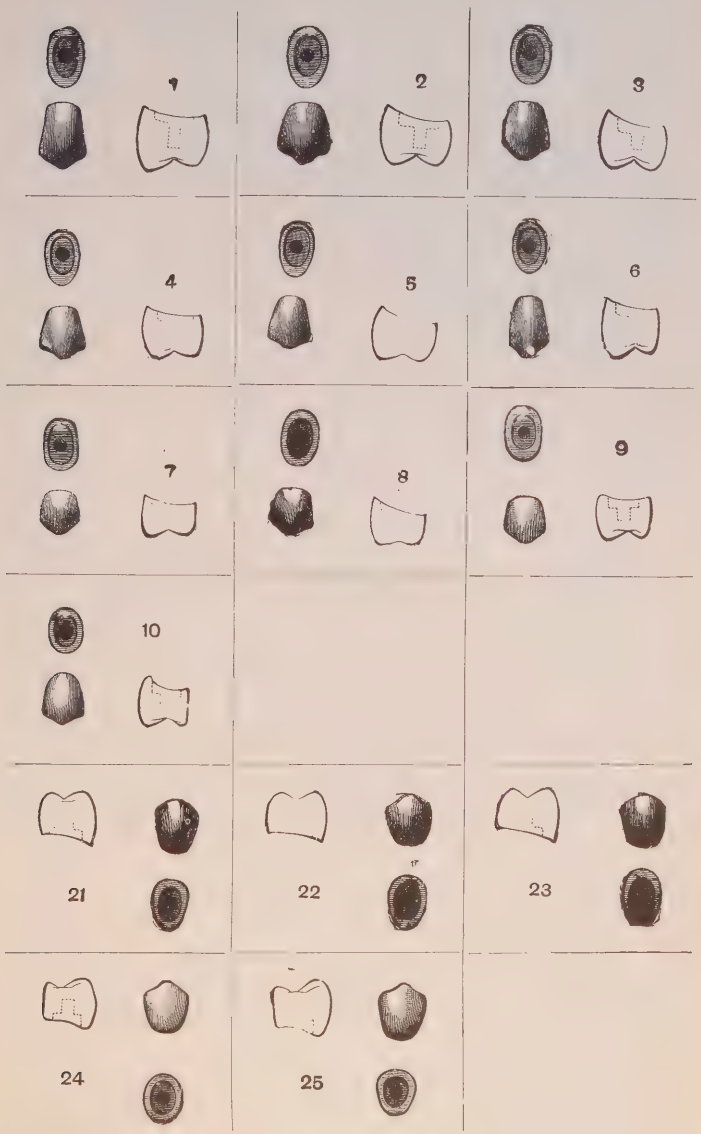
Ash's Dowel Crowns—BiCupsids



Ash's Dowel Crowns—Lowers

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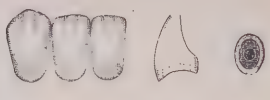

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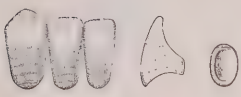

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Molars

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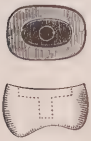

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Kingsley's Vulcanite Finishers

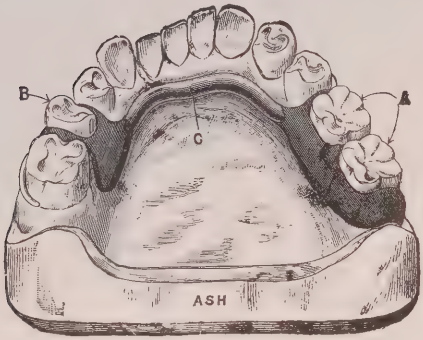
2 3 4 5 6

The illustrations show the full size of each blade; Fig. 1 shows the full length of each handle; and the outline on the side of Fig. 6 shows the curve of the blade.

In Polished Steel, with Wooden Handles (Figs. 1 to 6) each 50 cents

Ash's Oval Gold Case Wire

For Bar Lowers



Bar Lower Dentures have come into universal demand. Note some of their advantages.

No tendency to push teeth outwards.

Greater cleanliness.

Less bulk.

Greater rigidity.

Per dwt.	-	-	$ .50
18 kt. Gold	-	-	1.35

Claudius Ash, Sons & Co., Limited

Ash's Gold Solders

Unsurpassed in Color and working qualities

A leading Toronto Dentist says:—"The best Solder I have ever used."

14 kt.	- - -	$ .65 dwt.
16 kt.	- - -	.75 "
18 kt.	- - -	.85 "
20 kt.	- - -	.95 "
22 kt.	- - -	1.05 "

Ash's Dental Alloy Wire

Square and Round - $2.00 dwt.

Sold only in lengths of 2 dwt. each.

This wire is very rigid, being composed of Platinum and Silver and is high fusing enough to admit of pure gold being soldered to it.

Claudius Ash, Sons & Co., Limited

Ash's Popular Broaches

Coarse :: Medium :: Fine
Extra Fine :: Assorted

Per Gross :: :: $5.00

CLAUDIUS ASH, SONS & CO., Limited

Ash's Popular Temporary Stopping

Pink :: White :: Assorted

Per Package - - - - $ .30
Six Packages - - - - 1.50

CLAUDIUS ASH, SONS & CO., Limited

Ash's Medicine Bottles

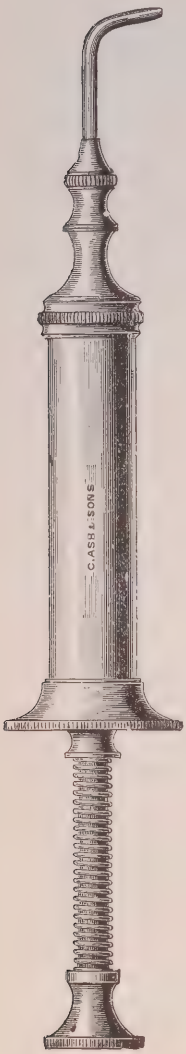
Made in England

A NICE assortment of these bottles all labelled makes a good impression. The labels on these bottles are burned on and are therefore practically indestructible.

We carry a good assortment of these labelled for the most popular drugs, but we will have any labels burned to your order.

In neat cardboard box, Each 60 cents.

Claudius Ash, Sons & Co., Limited



7¼ inches

Hunt's Fig. 1 Self-Filling Warm-Water Syringe

Original Form

From Pattern furnished to us by Dr. W. A. HUNT, of Yeovil in 1870

THIS Original Form of Dr. Hunt's Self-Filling Warm-Water Syringe is known all over the world, and Dr. Hunt sets forth its advantages in these few simple words:—

"The syringe with the spring compressed, as shown in the illustration, is put into a tumbler of warm water; thus when the Operator wants to use it the barrel is full of warm water immediately ready to his hand.

"Those who treat teeth are fully alive to the need of water in their syringe which is comfortably warm."

Syringe, nickel-plated with screw-off curved nozzle and leather plunger - $2.25

The Function

of a dentifrice is to promote oral health. Hence there are certain, specific qualifications that a ***real*** dentifrice must possess.

PYORRHOCIDE

POWDER

is qualified to perform the function of a real dentifrice, because it does more than is generally understood by the term "cleans the teeth." PYORRHOCIDE POWDER promotes Tooth-health, Gum-health, Mouth-health.

It removes the bacterial plaques or films which harbor the germs of decay—thus minimizing decay. It removes the daily accretion of salivary calculus—this calcic deposit is the principal cause of pyorrhea.

It induces blood circulation in the gum tissue. It makes the gums hard and firm—increasing their power of resistance against infection. It cleans and polishes the teeth.

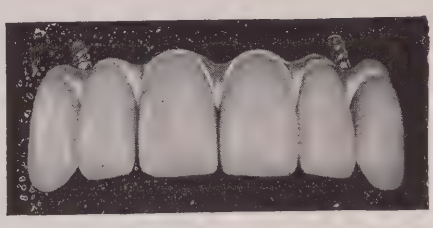
PYORRHOCIDE POWDER is medicated with DENTINOL (3%). Its soothing and healing action in soft, bleeding spongy, receding gum conditions and its efficiency as an auxiliary in the treatment of

PYORRHEA

are ascribed in part to the therapeutic properties of Dentinol, DENTINOL is unequalled in treating pyorrhea at the chair or for the prevention of soreness and inflammation caused by extractions, the placing of bridges, crowns, clamps or ligatures.

Literature Mailed on Request.

THE DENTINOL & PYORRHOCIDE CO.
Incorporated
110-112 West 40th Street New York

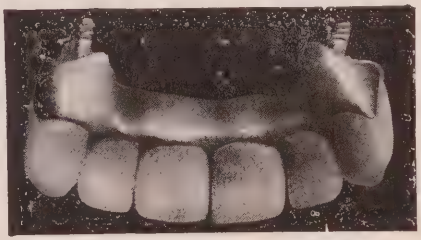


The Bridgework of Modern Dentistry

rests securely and serenely in the human mouth, *eluding detection*—because the suggestion of vulgarity, the display of gold hitherto apparently inseparable from the art of dentistry, is now eliminated.

It is made with GOSLEE TEETH. It holds a mirror to nature. It commands the admiration of patients. The patient equipped with Goslee Bridge Work is a permanent, practice-building influence for the doctor who did the work.

Send for "The Goslee Schoolmaster" and Catalog of Goslee Molds



Consolidated Dental Mfg. Co.

137 Washington Place, New York

...GOLD and... Your Laboratory

My Gold Work to the Dental Profession is NOT made to a PRICE.

The quality of the Gold I use is never lowered.

All Crowns made of 22 k, Gauge 29. All Solder is 18 k. Fineness guaranteed.

I guarantee satisfaction and give you in the finished product, what your money entitles you to.

CHARLES L. DALY

2 Bloor Street, East

Phone N. 5776 **TORONTO**

Smith's Copper Comes to Canada

A great many Canadian Dentists are using Smith's Copper Cement and have been using it for some time. ¶ Evidently you like it immensely---for you have been paying a stiff price for it. ¶ So we think you'll be glad to know that Smith's Copper has "come to Canada." ¶ Canadian offices and factories have been established in Toronto. ¶ Which means you can **now** buy Smith's Copper from your dealer at prices paid by dentists in the States. ¶ But---Smith's Copper doesn't compete on a price basis. You who have been using it know that it isn't obliged to. Like good dentistry it is sold on the basis of quality only. ¶ You can "feel quality" with your spatula when you mix Smith's Copper. ¶ And Furthermore---it is the only antiseptic cement---germicidal, therapeutic, sedative---which in spite of the copper in it.

WILL NOT DISCOLOR IN THE MOUTH

Ask Your Dealer about the New Prices.

Lee S. Smith & Son
Manufacturing Co.

449 Spadina Avenue **Toronto, Canada**

Russell G. MacDonald, *Canadian Manager*

Phone North 1082
Residence: Phone Park 1226

Crown Dental Laboratory

Specialists in Bridge Work

QUALITY! PROMPTNESS! CLOSE PRICES!

We Give You All These
You get full value for every Dollar spent with us

Bridge Work Mr. Hutson, the manager, attends to all this work himself, thereby protecting the dentist from the imperfect efforts of amateurs.

Plate Work We have a fine Plate Department, headed by an expert mechanic, who employs only the best assistants.

We are making a specialty of these Vulcanite Dentures, with Baker's Anchor Bar and Ash's Dowel Crowns, as shown at the recent Ontario Dental Society Meeting.

Price List on Application

All work under personal supervision of A. C. Hutson.

Rooms 1, 2 and 3 Claudius Ash Building
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No. 10

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Price
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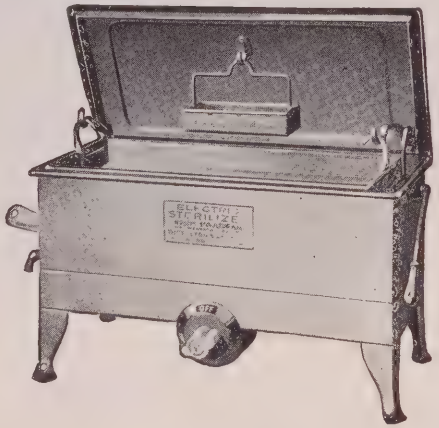

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Are you using a high silver-content alloy like Twentieth Century Alloy Perfected; are you amalgamating it in the proper mortar and pestle so that amalgamation may be perfect? Are you preparing your cavity with the greatest care and carving every facet and contour with the utmost skill?

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Twentieth Century Alloy Perfected—for Permanence

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DENTAL DEPOTS
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Inlays - Filling or Crown and Bridge Work.

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Volume 7 Number 3

MARCH - 1918

Ash's Canadian Quarterly

Issued from Toronto, June, September, December, March

Claudius Ash, Sons & Co., Limited

CANADIAN BRANCH

11-13 Grenville Street, Toronto, Canada

Main Depot London, W., England

CONTENTS

MARCH, 1917

Advertising Section - - - Page 2

ORIGINAL MATTER—

The Story of the Tooth-Brush
By C. EDGAR THOMAS - Page 3

Advertising Section - - - Page 9

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Ash's Canadian Quarterly Circular

Vol. VII. TORONTO, MARCH 1, 1918 No. 3

The Story of the Tooth-Brush

By C. EDGAR THOMAS.

The tooth-brush is fortunate in the possession of a very fascinating history, not a little of which is doubtless due to the fact that, in common with many another article of domestic use, its origin is shrouded in mystery. Indeed, it would require a very bold and courageous writer to assign the date of its introduction, for the references to the tooth-brush in history and literature are as confusing and as contradictory as they can possibly be.

Thackeray has perpetrated what is undoubtedly an anachronism, when in "Esmond" he indicates the foppery of Lord Castlewood thus: "He spent a tenth part of his day in the brushing of his teeth and the oiling of his hair." If—as is hardly likely—tooth-brushes were in general use about 1700, it is rather too much to assume that they would have been unknown some fifty years later! At any rate, Lord Chesterfield, in 1754, was evidently quite unaware of their existence, if we are to believe the "Letters to his Son," in which missives he was never tired of impressing upon him the importance of attending to his teeth. In one letter he says: "Nothing seems little to me that can be of any use to you. I hope you take great care of your mouth and teeth, and that you clean them well every morning with a sponge and tepid water, with a few drops of arque-busade water dropped into it; besides washing your mouth carefully after every meal. I do insist upon your never using thoes sticks, or any hard substance whatever, which always rub away the gums and destroy the varnish of the teeth." We may say en passant

that Thackeray's little slip was in fact a double anachronism, for "the oiling of his hair" seems absolutely ridiculous when we reflect that during the first decade of the eighteenth century all gentlemen wore wigs!

However, if tooth-brushes were actually in use when Henry Esmond visited Castlewood, they were probably of very recent invention, for Salmon in his "Synopsis Medicinae," 1695, gives several minute directions for cleansing the teeth, but does not mention the tooth-brush. He advocates that the teeth should be washed "with a cloth," and again, on the same page, "Dip a little stik therein (that is, in the wash), rub the Teeth with the end thereof, and then wipe them with a rag." Tooth-brushes would not appear to have been invented even by 1730, for in that year Dean Swift, in his particularly revolting description of a "Lady's Dressing Room," speaks of "the scrapings from her teeth and gums."

It is more than probable that the teeth of the seventeenth century—to say nothing of those of a later date—were cleansed, when indeed they were cleansed, otherwise than by brushing. One of William Vaughan's "Fifteen Directions to Preserve Health," 1602, was: "Picke and rub your teeth: and because I would not haue to bestow much cost in making dentrifices for them; I will aduertise you by foure rules of importance how to keepe your teeth white and vncorrupt, and also to haue a sweete breath. First washe well your mouth when you haue eaten your meat: secondly sleepe with your mouth somewhat open. Thirdly, spit out in the morning that which is gathered together that night in the throate: then take a linnen cloth and rub your teeth well within and without to take away the fumosities of the meat and the yellownesse of the teeth." The advice to sleep with the mouth open is now somewhat discredited, for it is not so many years since George Catlin issued his "Shut Your Mouth," a book which went into at least six editions. Now-a-days, nightmare, headache, toothache, rheumatism, dyspepsia, gout, bronchitis, quinsey, croup, asthma, rickets, diseases of the liver, heart, spine, and "of the whole nervous system from the brains to the toes, may chiefly be attributed to this deadly and unnatural habit" of open-mouthed slumber, says the alarmist.

Reverting to the seventeenth century we find that Richard

West enjoined his readers, in his "Booke of the Demeanor," 1618, to

> "Keep white thy teeth and wash thy mouth
> With water pure and cleane,
> And in that washing mannerly
> Observe and keep a meane."

Some ten years earlier the dramatist Decker had published his "Gull's Horn-Book," in which he offered this suggestion to the coxcomb: "After dinner you may then be seen for a turn or two to correct your teeth with some quill or silver instrument and to cleanse your gums with a wrought handkerchief."

It is remarkable that mention of teeth powder is made long before mention of the brush, but this does not necessarily imply that brushes were in existence contemporaneously with the powder, for the latter could be, and was, applied to the teeth with a cloth. The following extract is from a letter sent by William Bradford, son of Samuel Bradford, Dean of Westminster and Bishop of Carlisle, to Samuel Kerrich, Fellow of Corpus Christi College, Cambridge:—"Westmr. October 20th, 1719. I have now a favour to beg of you ye next time you go to Mrs. Newtons: (by ye by I suppose I am never to be forgiven for not calling to take my leave before I left Camb.) it is to ask Mrs. Watson wt ye Powder she once gave me for my teeth is compounded of; I know there is myrrh in it, but cannot tell wt else. I have us'd all I had, and like a puppy forgot to get any more when in Coll: to be sure I am in Love, but who can help yt you know, Sam? Pray let me know this in your next." The powder herein mentioned was probably something akin to Lord Chesterfield's "Arque-busade," and no doubt was used on a cloth or sponge, as generally appears to have been the custom in the first half of the eighteenth century. Prior to that time the teeth would appear to have been cleaned with "pick-tooths" only, and these were ordained to be made of lentisk wood. The great Dr. Samuel Johnson, in describing this wood, quotes from Mortimer's "Husbandry" (1707), and says that it "is a beautiful evergreen, the mastick or gum of which is of use for the teeth or gums." Toothpicks were worn in the hat by men, and in the hair, as pins, by ladies, and it is more than probable that at this early period nothing further was done towards cleaning the teeth.

In the year 1797, by the recommendation of Dr. Gregory, "The Catechism of Health," by Dr. Faust, was "published for the use of the inhabitants of Scotland." In connection with the

teeth it contained no instructions as to the use of a brush, but on the contrary the teeth were to be cleaned "after each meal either by drinking or gargling the mouth." The front teeth were to be "prserved sound by constant use and the chewing particularly of dry substances, such as bread, etc." It is interesting to note that in the instructions for the treatment of children it is stated that their hair "ought to be combed repeatedly every day," but the hair-brush appears to have been unknown to the writer, as apparently also was the tooth-brush.

Some many years ago a writer supplied to the pages of "Notes and Queries" some extracts from an old book of manuscript receipts. The interesting little volume commenced about 1623, and was once the property of Elizabeth, Lady Morton, who presented it in 1679 "to her deare Brother William Ffinch at Hun . . . in Lincolnshire." It contained mention of several tooth powders, but no mention was made of brushes with which to apply them to the teeth. The following are some of the entries:—

"Dr. Myrons Dentryfris or powder for the teeth to keepe them whit:—Burne a peece of Corke till it looke like a Coale, then take it out of the Fayre and it will fall to ashes wherewith rub your teeth."

"Sr. Joslin Perceis—to make cleane the teeth wheresoever they bee Blacke or foule:—

"Dip a little rag in Oyle of Sulphere and rub your teeth with it; but lett none goe into your Mouth for it is terrible jll tasted, but of no Danger at all if any goe downe the throate: it will make the teeth pure white; but it is not good to be used but now and then."

These dentrifices were to be applied with a rag or with the finger.

From a little work entitled "A General Practise of Phisicke," published by one Thomas Adams in 1617, is taken the following extract, which will serve to prove very conclusively that the tooth-brush was not in common use at that date:—

"To make and to keepe the teeth cleane.

"Take two drag. of Date stones, red Corall prepared drag. Lupins, and the roots of the yellow Flower-deluce, each of three drag. beate all that is to be beaten and afterwards make a confection of it with clarified hony which must be so hard that you may make small placents or trocises of it; dry them in the shadow: when you will vse them, then dissolve one of them in wine or vinegar, and wash the teeth therewith euery morning *when thou hast first rubbed them with a cloth.*"

It should be stated that all this writer's directions for the care and treatment of the teeth insist upon scrupulous cleanliness, which is to be atained by "washing," by "rubbing with a coarse cloth," and by rubbing them "last of all with a peece of Scarlet dipped in Hony." The final direction runs:—"The teeth also are

always to be kept cleane and pure, and not to picke them with an iron, but with a toothpicker made of Lentiscus, which is the tree whereof droppeth Mastick, which is much commended for the teeth; remember also to wash the teeth after euery meale."

But a host of other seventeenth century books might be quoted from, in connection with the cleaning of the teeth, down to Mistress Hannah Woolley, who told her pupils in 1682, that "you ought to keep your teeth very clean by rubbing them every morning with water and salt . . . You may, if you please, try Mr. Turner's Dentrifrices, which are every where much cried up."

In "The Toilet of Flora . . . for the Use of the Ladies," published at London in 1784, there is included this receipt for making

"A Coral Stick for the Teeth.

"Make a stiff Paste with Tooth Powder and a sufficient quantity of Mucilage of Gum Tragacanth: form with this Paste, little cylindrical Rollers, the thickness of a large goose-quill and about three inches in length. Dry them in the shade. The method of using this stick is to rub it against the teeth which become cleaner in proportion as it wastes."

In this same work directions are also given for the preparation of certain roots "that are used to clean teeth." Lucerne and Liquorice roots are specially recommended, which were to be boiled and cut into pieces about six inches long. Each end of the root was then "to be slit with a pen-knife into the form of a brush," after which they were to be slowly dried to prevent them splitting. "They are to be used in the following manner. One of the ends is moistened with a little water, dipped into the tooth-powder, and then rubbed against the teeth till they look white." Should strong measures be needed, for instance for the removal of tartar, "the best instrument is a small piece of wood like a butcher's skewer rendered soft at the end. It is generally to be used alone; only once in a fortnight dip it into a few grains of gun-powder, which has previously been bruised." Or, as an alternate method, "take a large skewer on the end of which is tied a piece of linen rag, dip the rag in the medicine and rub the teeth and gums with it." It is more than possible that these prepared roots slit "into the form of a little brush," were the connecting link between the tooth-stick and the modern tooth-brush as we now know it.

Among the entries relating to private accounts of one Francis

Sitwell, of Renishaw, during the years 1728-1748, are to be found these items:—

"1729. Sept. 6. Disbursed at London (among many other items) a silver tooth-stick 8*d*.

"1729. Oct. 9. Disbursed at London (among various items) a tooth brush 4*d*."

This mention of the four-penny tooth-brush in 1729 is one of the earliest to be met with in this country, but from a passage in "The Memoirs of Sophia, Electress of Hanover," it would seem that the tooth-brush was already in use about 1640:—"I rose at seven in the morning and was obliged to go every day en déshabille to Mlle. Marie de Quat . . . who made me pray and read the Bible. She then set me to learn the 'Quadrains de Pebrac' while she employed the time in brushing her teeth; her grimaces during this performance are more firmly fixed in my memory than the lessons which she tried to teach."

Then there is the story extant regarding a girl—the daughter of a well-to-do farmer—who was very primitive as regards the cleaning of her teeth, seeing that she merely rubbed them with a soapy towel. In Egypt, the finger—made before tooth-brushes as well as "before forks"!—is often used as a substitute for bristles, as witness what A. J. Butler says in his "Court Life in Egypt":—"After every meal the servants were in attendance with napkins, ewers, and basins. One servant holds the basin, while another pours a stream of fresh water over the hands. Some of the natives, while performing their ablutions, made a thick lather of soap, which they thrust into their mouths, using a finger as a tooth-brush."

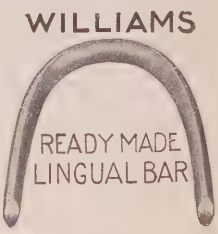
Again, there is still in existence a tooth-brush the handle of which is of gold, and bears upon one side the Imperial Arms of France, and on the other the initial N. This is reputed to have formerly belonged to the famous Napoleon, and it is significant that it would exactly fit the space in that worthy's dressing-case, now at Madame Tussaud's, and which is said to have been rifled by the Prussians.

Still, notwithstanding all that has been written about the tooth-brush, it yet remains a very doubtful question as to when it came into ordinary and general use. The following reference to it from "The Miseries of Human Life," published in 1806, is worth quoting:—"While you are waiting for a fresh supply of

tooth-brushes—battering your teeth with the ivory, and pricking your gums with the bristles, of your old one, completely grubbed out in the middle—its few remaining hair staring off horizontally on all sides."

The well-known "Memoirs of the Verney Family" also give us an interesting glance at the tooth-brush:—"While powder and patches are among the ordinary toilet necessaries, tooth-brushes are new and costly luxuries, as late as in 1649 an English friend asks Sir Ralph to inquire for him in Paris for the 'little brushes for making clean of the teeth, most covered with sylver an some few with gold and sylver Twiste, together with some Petits Bouettes (British for Boîtes) to put them in.'"

WILLIAMS READY MADE LINGUAL BARS are properly bent, contoured, and semi-adjusted, so that with every little manipulation they can be made to fit any case. Made with both plain and corrugated ends.



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Guages (18x12)—9x14—10x13-$1.25 each.

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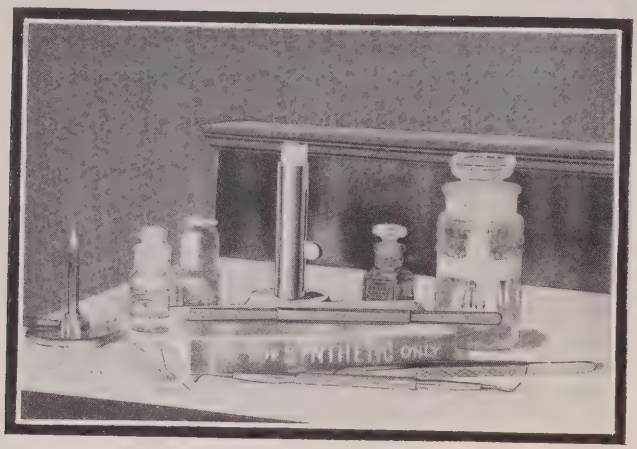

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GIVEN the proper instruments, particular shades of powder, necessary liquid, cavity lining, cocoa butter, celluloid strips and shade guide, you possess all the requisites necessary for the making of a perfect restoration with de Trey's Synthetic Porcelain.

See that your cavity preparation is made with the utmost care. Start your mix immediately, being sure that its final consistency is right. Use the instruments which have been found particularly adapted for this type of work and exercise your best skill to mold the material so that it will reproduce every contour of the natural tooth.

In this way you will find that de Trey's Synthetic Porcelain simulates nature to perfection and that in translucency, color and crushing strength it is incomparable.

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DID you ever stop to think that your patient expects an amalgam filling to last, not a few months, one or two years—but a lifetime?

What are you doing to bring your amalgam work up to the standard which is making reputations every day for some of our best men?

Are you using a high silver-content alloy like Twentieth Century Alloy Perfected; are you amalgamating it in the proper mortar and pestle so that amalgamation may be perfect? Are you preparing your cavity with the greatest care and carving every facet and contour with the utmost skill?

If so, you are demanding an adequate fee for such work and your patients are glad to pay it because such amalgam fillings in posterior teeth are beyond a doubt the superior even of gold.

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Stents Composition—*Continued*

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To mark the genuineness of our Rubbers, the face of every box and envelope which we supply bears this signature and monogram—

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TO obtain the best results with this product bear in mind that it is all "Pure Para" and contains no colouring matter whatever. It is necessary, therefore, in vulcanization to advance the heat very slowly and vulcanize for at least one and one-half hours.

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Price, per pound - -	$ 5.50
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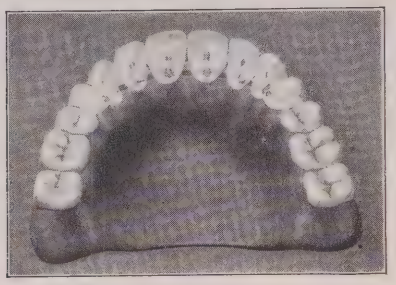

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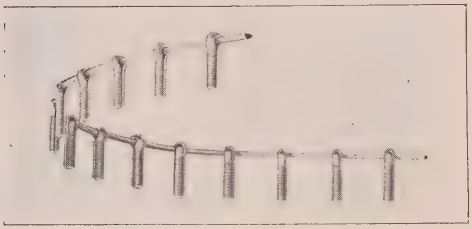
Dowel Crowns

in Vulcanite Work *with* Anchor Bar and Posts



Claudius Ash, Sons & Co., Limited

To the Dental Profession

We draw your attention to a new method by which the Ash Dowel Crown with the Anchor Bar and Posts gives a restoration and tongue space in the oral cavity with the Anterior Teeth, which is impossible with any other Tooth in Vulcanite dentures.

Ash Crowns mounted in this way are not only stronger than Cross Pin Teeth, but give the Natural Bulbous lingual surface the same as Natural Teeth, providing a full striking surface for the tongue,—a freedom for the tongue also in the oral cavity not permitted in any other denture.

Dentures of this character are the greatest improvement in Vulcanite Plates since vulcanite was first introduced.

DIRECTIONS IN MOUNTING

1. Remove Posts from bar.
2. If necessary and case requires, grind a slight depression in the sides of each Crown to receive the bar.
3. Grind the end of post (but not the sides) to fit the pin-hole snugly.
4. Mount each Crown in waxing up, with pin in position, leaving pin in Crown.

DIRECTIONS AFTER SETTING UP AND INVESTING.

5. Boil out the wax carefully, taking care not to wash out the posts.
6. Remove the Posts IN ORDER in which they are to go back.
7. Adjust the bar to CONFORM to the necks of Crowns.
8. Replace Posts on bar in order in which they were taken from Crowns.
9. Pack lightly a pin head of Rubber in each post-hole.
10. Warm the flask so as to soften the Rubber in holes of Crowns.
11. Insert the Posts and bar, and carefully press bar and pins to position.

NOTES

1. Every Ash Dowel Crown has the pin-hole undercut, and both the hole and Dowel Chamber roughened so as to have retention for Vulcanite, being specially prepared for this work.

Do not be misled into using other Crowns with glazed pin-holes and no undercut, or you will spoil a good method.

2. In mounting the Crowns on the wax you can allow for a separation between each Crown, or a slight tilt of the lateral to make case more natural, or set irregularly, if desired, as the bar gives its added strength to each anchored pin; and Crowns mounted this way have twice the strength of Cross Pin Teeth.

3. Should a Crown be broken from the Plate the Post stands, and you have anchorage for cementing a new Crown to the post the same as you would to a root in Crown work, thus eliminating revulcanization and giving a quick and most satisfactory repair.

Posts for Anchor Bar are made smaller for Lower Incisor Crowns having a smaller post hole than Upper.

In ordering specify Upper or Lower.

PRICE

6 Dowel Crowns - - - - - } $1.38
8 Diatoric Posteriors - - - }

Anchor Bar with 6 Posts - - $1.10

CLAUDIUS ASH, SONS & CO., Limited

Ash's Dowel Crowns

The following five pages, which show some of our moulds of Ash's Detached Post Crowns, are well worth close examination and study. The illustrations will be valuable as a reference and guide in ordering by mail. Keep these illustrations in a convenient place, as, of course, you will become a user of them when you are conversant with their superiority over any of the existing dowel crowns.

The price, too, is a great consideration—make a note of it—

15 cents each.

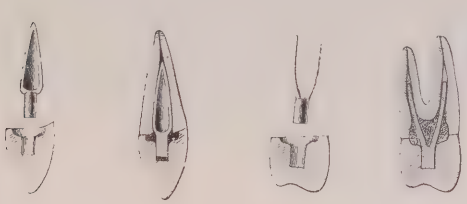
$12.00 per hundred.

Outside of the recognized value they have, as being made of our celebrated mineral, positively the only body that can be *successfully* polished after grinding, the moulds are the most serviceable. Notice in the Anterior and Bicuspid teeth, the provision for roots that are large bucco-lingually.

Note also the recess in the crown that takes the post. It is etched in each and every crown, assuring you of perfect cementation. We are also making now the labial aspect of our crowns much longer than shown in the illustrations. This improvement is obvious.

Claudius Ash, Sons & Co., Limited

Ash's Dowel Crowns



The principal advantage of a detachable crown, as contrasted with a crown having a pin fixed in the mineral, lies in the facility afforded for grinding the base of the crown to fit the root and for bending the dowel to the angle required to obtain a correct bite.

In Ash's Dowel Crowns the measurements and shapes of the bases are such as to fit the greatest number of average roots.

The dowels are made of the best quality Dental Alloy, and are much more rigid than Platinum; they are strongest at the part which has to bear the greatest strain, viz., where the crown joins the root. Those intended for bifurcated roots of Bicuspids are extremely strong; at the same time the pin ends are sufficiently pliable and thin to allow them to follow the bends of root-canals. We need hardly emphasize the serious objection that exists to the insertion of a base metal pin in a natural root.

Made in sets of six—Centrals, Laterals and Canines in thirty sizes and patterns. Bicuspids in fifteen sizes, and Molars in fourteen sizes; other sizes in preparation.

Each		$0.15
100 Crowns		.12
Single Pins, in two sizes, in Dental Alloy	each	.55
Bifurcated Pins, in Dental Alloy	each	.65
Base Metal Pins	each	.07

Ash's Dowel Crowns—Uppers

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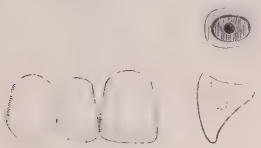
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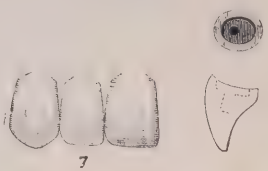
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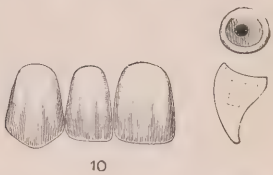
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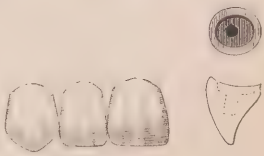
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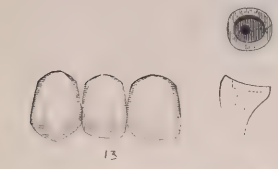
Ash's Dowel Crowns—Uppers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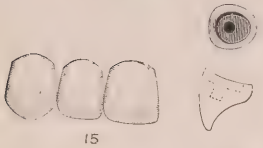
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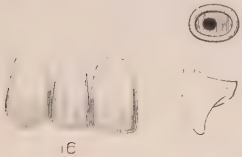
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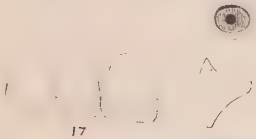
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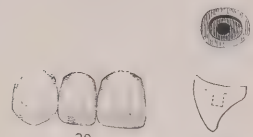
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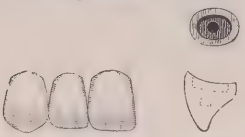
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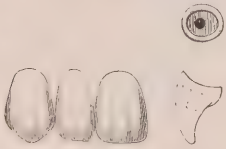
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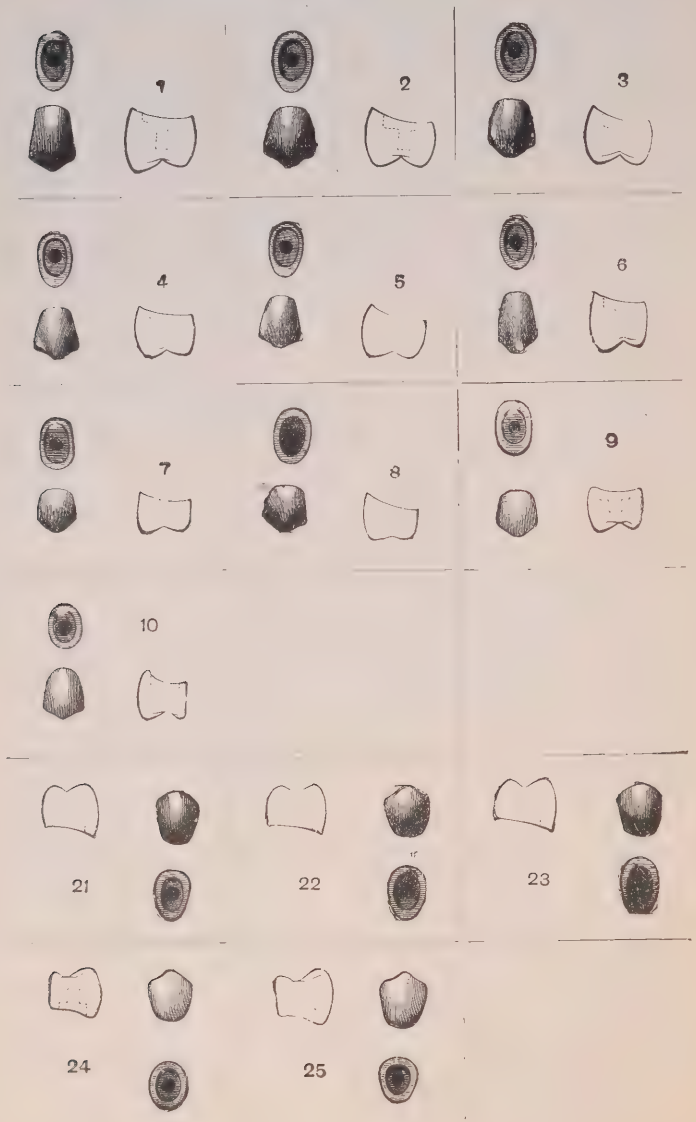
Ash's Dowel Crowns—BiCuspids



Ash's Dowel Crowns—Lowers

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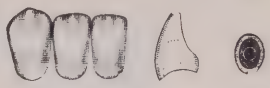

54

52

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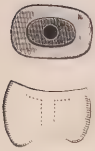
Molars



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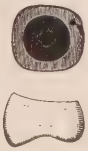

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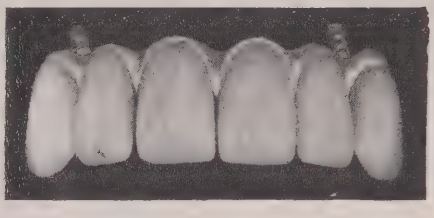
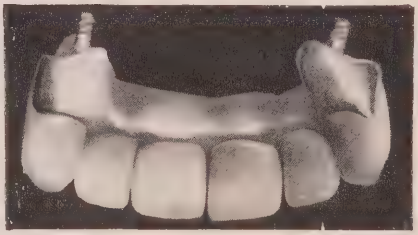


The Bridgework of Modern Dentistry

rests securely and serenely in the human mouth, *eluding detection* because the suggestion of vulgarity, the display of gold hitherto apparently inseparable from the art of dentistry, is now eliminated.

It is made with GOSLEE TEETH. It holds a mirror to nature. It commands the admiration of patients. The patient equipped with Goslee Bridge Work is a permanent, practice-building influence for the doctor who did the work.

Send for "The Goslee Schoolmaster" and Catalog of Goslee Molds.



Consolidated Dental Mfg. Co.

137 Washington Place, New York

Prosthetic Dentistry

...Important Notice...

KNOWING how many Dental Mechanics will be compelled to join the Army, we desire as far as possible to help the members of the Dental Profession with their Mechanical Work during this grave crisis.

E. ALLINGHAM
324 Broadview Ave.
TORONTO
Ontario

TELEPHONE
GERRARD
4040
LONG DISTANCE
CONNECTION

Smith's Copper Comes to Canada

A great many Canadian Dentists are using Smith's Copper Cement and have been using it for some time. ¶ Evidently you like it immensely---for you have been paying a stiff price for it. ¶ So we think you'll be glad to know that Smith's Copper has "come to Canada." ¶ Canadian offices and factories have been established in Toronto. ¶ Which means you can **now** buy Smith's Copper from your dealer at prices paid by dentists in the States. ¶ But---Smith's Copper doesn't compete on a price basis. You who have been using it know that it isn't obliged to. Like good dentistry it is sold on the basis of quality only. ¶ You can "feel quality" with your spatula when you mix Smith's Copper. ¶ And Furthermore---it is the only antiseptic cement-- germicidal, therapeutic, sedative---which in spite of the copper in it.

WILL NOT DISCOLOR IN THE MOUTH

Ask Your Dealer about the New Prices.

Lee S. Smith & Son
Manufacturing Co.

449 Spadina Avenue Toronto, Canada

Russell G. MacDonald, *Canadian Manager*

C.A.S. "New" Copper Cement

An Ideal Cement that fulfills all requirements ...for...

Inlays - Filling or Crown and Bridge Work.

C.A.S. Copper Cement has all the qualities of our oxyphosphate of zinc cement---density---inpenetrability--constancy of liquid and fineness of powder plus the copper value.

In Four Colors

Grey - Pearl Grey - Brown - Black

Double Portion Package - $2.50

CLAUDIUS ASH, SONS & CO., Limited

1

Lancets for Abscesses, etc.

Figs. 1 and 2. For opening abscesses, trimming and smoothing filings, etc.

In Steel Handles, Nickel-plated,
Each - 50 cents.

Other Lancets made or obtained to order.

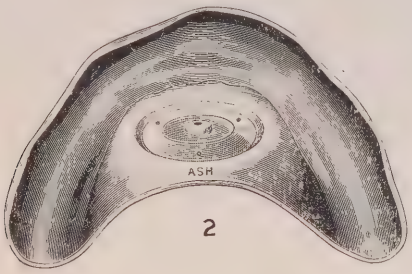
2

Rauhe's Improved Suction Disc for Vulcanite Dentures

PATENTED IN ENGLAND, GERMANY, FRANCE, AUSTRIA-HUNGARY, BELGIUM, THE UNITED STATES, ETC.

Rauhe's Suction Disc has been specially designed to prevent injury to the palate. It does not draw down the tissues and produce soreness in the mouth. In this respect it is greatly superior to all existing Suction Discs.

There are no parts about it which can be lost or misplaced, such as bolts or screws, etc.



It is easily kept clean, owing to the fact that the rubber disc can be removed and replaced in a few seconds, without the use of a tool of any kind.

The anchorage of the rubber disc is so simple that the patient can renew the disc when necessary.

The suction power of the disc is sufficient to hold a denture quite firmly and securely in position.

It is unnecessary to add clasps to partial sets which are fitted with Rauhe's Suction Disc.

Directions for Use.

Press the disc on the most suitable part of the plaster of Paris model with the thumb, fasten it in position with the three small pins which are supplied with it, being careful to drive the head right home, and pack the hole in the centre with dental

rubber. After the case is packed and vulcanized, strip off the tin form in which the stud is embedded; the portion in which the pins are driven should be removed first. To facilitate removal, cut through the tin, open it with a pocket knife or suitable tool, and strip it off. Should the edge of the stud be bent in stripping off the tin form, it can readily be straightened with any blunt tool. When the stud is thus cleared of the tin form, slip a rubber disc over it and the Suction Disc is ready for use. To do this, the rubber disc should be held down with the thumb of the left hand and stretched over the stud with the thumb and forefinger of the right hand.

In regard to the position in which the Suction Disc should be set on the plaster of Paris model, it will be obvious that the flattest part of the palate should be chosen. Two Suction Discs should be used on exceptionally high palates and on V-shaped palates—one on each side. In the case of large palates it is desirable to set the Suction Disc as far back as possible.

Sometimes the full power of the Suction Disc is not immediately exercised when it is first put into the mouth, but after it has been worn for some time its action will be perfectly efficient.

SPECIAL.—To remove the collar from beneath the Stud, after the case is vulcanized, insert the point of an excavator in the slit exactly opposite the letter C in the name C. Rauhe and open it out gradually, without levering it up, so as not to injure the stud.

Prices.

Rauhe's Suction Discs for Vulcanite Work:

Gold Stud with 3 India-Rubber Discs	each	$ 1.00
	per doz.	11.25
Aluminum-Alloy Stud with 3 India-Rubber Discs,	each	.50
	per half doz.	2.50
Extra India-Rubber Discs, any size	per doz.	.65

Claudius Ash, Sons & Co., Limited

Sole Agents

Ash's C.A.S. Cement

Oxyphosphate of Zinc

Double Portion Package, $2.50
Six Color Package, $12.00

Claudius Ash, Sons & Co.
Limited
11-13 Grenville Street
Toronto

Volume 8 Number 1

JUNE - 1918

Ash's Canadian Quarterly

Issued from Toronto, June, September, December, March

Claudius Ash, Sons & Co., Limited

CANADIAN BRANCH

11-13 Grenville Street, Toronto, Canada

Main Depot London, W., England

CONTENTS

JUNE, 1918

Advertising Section - - - Page 2

ORIGINAL MATTER—

Ash's Tube Teeth in Esthetic Crown and Bridge Work, P. R. CHANCE - - Page 3

Advertising Section - - - Page 5

THEN and NOW
1820 ⟷ 1918

A Century of Dentistry

As demonstrated by the progress of Britain's Premier House for Dental Supplies.

WHEN our Business was established, nearly a hundred years ago, Dentistry had not come into being as a distinct branch of medical science.

How restricted was its range and practice may be recalled by the few crude dental instruments then available. Artificial teeth and dentures were carved out of blocks of solid ivory. Mineral and porcelain teeth had yet to be manufactured. Rubber for dentures was not known; its vulcanization and application to dental purposes remained to be discovered and perfected. There were no anæsthetics. Dental alloys and cements and many other materials used by present day Operators were not yet invented; and dental apparatus, to meet the precision and delicacy demanded by modern requirements, had to be devised and improved. Through all the changes and inventions which have revolutionised Dentistry during the century since it it was first established, this House has moved with the advance of knowledge and science, has assisted in the evolution of its beneficent art, and, indeed, initiated many of its most estimable features. Our business, our manufactures, and our goods generally are the outcome of long and invaluable experience.

These facts need no further emphasis to demonstrate our unique position and extensive resources in relation to the manufacture and supply of up-to-date Dental Requisites.

Claudius Ash, Sons & Co. Limited

5-12 Broad Street, Golden Square
LONDON, W. 1. — *Established 1820*

Canadian Branch:
11-13 Grenville Street - Toronto, Ont.

Ash's Canadian Quarterly Circular

Vol. VIII. TORONTO, JUNE 1, 1918 No. 1

Ash's Tube Teeth in Esthetic Crown and Bridge Work

Messrs. C. Ash, Sons & Co., London

Dear Sirs :—

My paper on "Ash's Tube Teeth in Esthetic Crown and Bridge work" was prepared for presentation to the Philadelphia Academy of Stomatology and for publication in the Dental Brief. Had it been prepared originally for publication in the Quarterly Circular I would have laid more stress on the great superiority of the Ash Tooth Facings as well as the Tube-Tooth over some, if not all, of the American teeth, I do not believe the Ash-tooth is well known in America, and think it would be a great blessing to the profession there if its use became more general. I know of no American tooth; that compares with it in hardness, strength, and natural appearance and one of its greatest advantages lies in its very fine texture enabling one to polish a ground surface with a result unapproached in any other dental porcelain. It is impossible to detect a crown or bridge, made with a well-matched Ash Facing, but when certain American facings have been used the wearers publish broadcast the fact that repair work has been done in their mouths. To me the sight of gold caps in the mouth is detestable, and next to this comes the incisor crown, or bridge,

made with facings the unnatural appearance of which makes them conspicuous in the mouth of the wearer.

I have often detected evidence of artifical crowns in the mouths of people I have met casually because certain American facings had been employed, and these same poor victims of decay and bad repair would have passed unnoticed had their dentist made use of the best that money can buy. We Americans are the most practical people in the world, but our country is still to young to become artistic. The dentists in my home-country use too much gold and many of them make too small an effort to conceal even the porcelain they use. They have the best the world can give them of all they need for their work, except porcelain teeth, and it would be a godsend to them if the use of this great production, Ash's Porcelain Tooth, became more general.

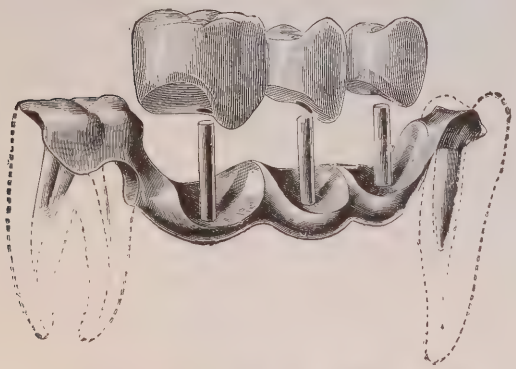
There is no other tooth that could stand the test the Tube-Tooth stands when used as a crown, or on a bridge, even on a gold plate, and when it is ground down so very thin that one dreads placing it. The facing, when used in crown, or bridge, or plate work, is less liable to crack under the blowpipe then any other tooth I have ever used. When a well-matched facing is used for a bridge or a single crown it is impossible to detect it and I am sorry I cannot say the same for certain American teeth, but with most of them detection is easy. A comparison of the tube crown with any other artifcal porcelain crown would convince anyone of the great superiority of the former in natural appearance, the ease with which a ground surface can be repolished, and in its greater strength.

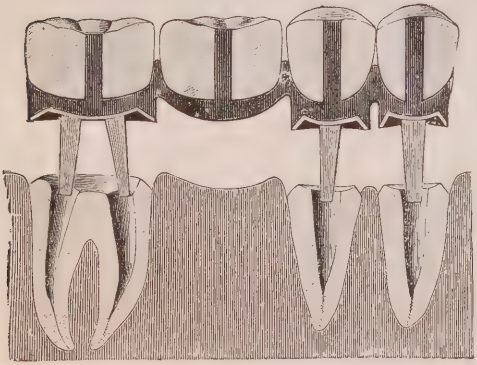
Very truly yours,

P. R. CHANCE

Ash's Tube Teeth

The strongest and simplest Tooth for Bridge Work



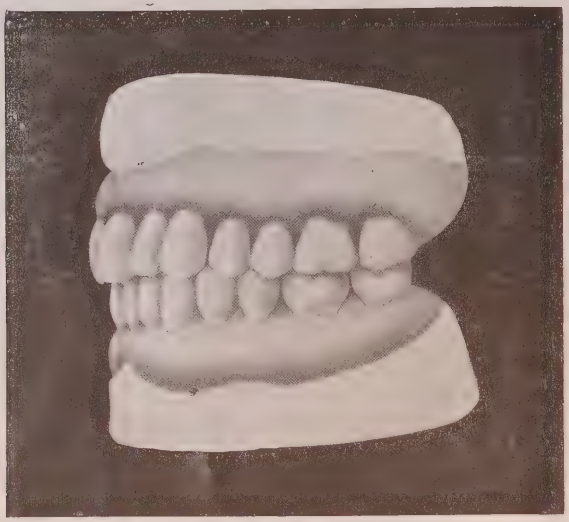


Non-Platinum Teeth - Each 25 cents

Per Hundred, $22.50

Claudius Ash, Sons & Co., Limited

Ash's Diatoric Teeth



IF they have been less extensively advertised than some other manufacturers, the explanation is to be found in the fact that their popularity, due to the recognition of their utility, has been so great that the demand has exceeded the supply, this is the best advertisement that any article can have.

Per Set of 8 Posterior	- -	$0.48
" " 14	- -	0.84
" " 28	- -	1.68

Claudius Ash, Sons & Co., Limited

Ash's Repair Facings

Made in the patterns shown in booklet which can be had on application, and supplied in sets of 6, sets of 4, pairs and odd.

The three sizes here illustrated are intended to show the distinctive feature to which we wish to draw attention, viz., the oval cavity in the back of each.

They can be used for repairing nearly every kind of denture; they are easily applied, exceedingly durable, and can be quickly fitted—it does not take longer than from 10 to 15 minutes to fit one.

83

71

14

They are invaluable for repairs to Bridges, and in all cases of Plate and Crown work in which a flat tooth has to be replaced.

The oval cavity at the back of each Facing corresponds with the positions of pins in our Flat Pin Teeth. The Facings do not require backing, but can be applied to the backings of fractured or broken teeth when the broken portions of mineral have been removed from the backings.

IMPORTANT NOTE.

For attaching these Repair Facings to teeth backings, etc., **we recomcend our C.A.S. Cement,** or our **Inlay and Crown Cement.**

Price each - 30 cents

Claudius Ash, Sons & Co., Limited

The Best is not too Good for You

ASH'S CASCO TEETH

The Tooth *par excellence* for Vulcanite Work with all precious metal pins.

Complete Sets:

6 Anterior Cascoe
8 Posterior Ash Diatoric } $1.98

Claudius Ash, Sons & Co., Limited

"Ash Special Alloy"

It has wonderful edge strength. Will not shrink or expand and can be ground to a razor edge. ¶ We guarantee the quality to be always uniform.

In Filings and Shavings

$1.75 per oz.

Claudius Ash, Sons & Co. Limited

11-13 Grenville Street

Toronto

"SYNTHETIC" for PERMANENCE

Whether it be——

For the simplest cervical filling
For large interproximal restorations
For corners, tips, or jacket crowns
For interchangeable tooth cementation
For broken facing replacements

DE TREY'S SYNTHETIC PORCELAIN

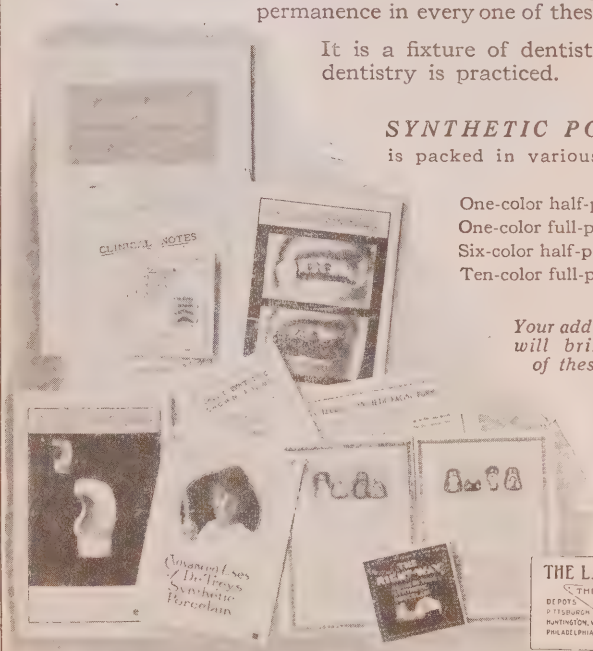
Has established for itself a reputation for permanence in every one of these many uses.

It is a fixture of dentistry wherever dentistry is practiced.

SYNTHETIC PORCELAIN
is packed in various assortments

One-color half-portion .	$2.25
One-color full-portion .	4.00
Six-color half-portion .	11.50
Ten-color full-portion .	35.00

Your address on a postal will bring any or all of these pamphlets.



They cover every use and answer every question on de TREY'S SYNTHETIC PORCELAIN

THE L.D.CAULK COMPANY
THE WORLDS GREATEST LABORATORIES for the manufacture of DENTAL FILLING MATERIALS
DEPOTS: PITTSBURGH, HUNTINGTON, W.VA. PHILADELPHIA, PENNA. TORONTO CANADA MILFORD DELAWARE

THE L.D. CAULK COMPANY
THE WORLDS GREATEST LABORATORIES for the manufacture of DENTAL FILLING MATERIALS
DEPOTS: PITTSBURGH, HUNTINGTON, W.VA. PHILADELPHIA, PENNA. TORONTO CANADA MILFORD DELAWARE

"*ABSCESS TREATMENTS* have lost all their terrors since *CRESOLFORM* is a regular member of my drug cabinet."

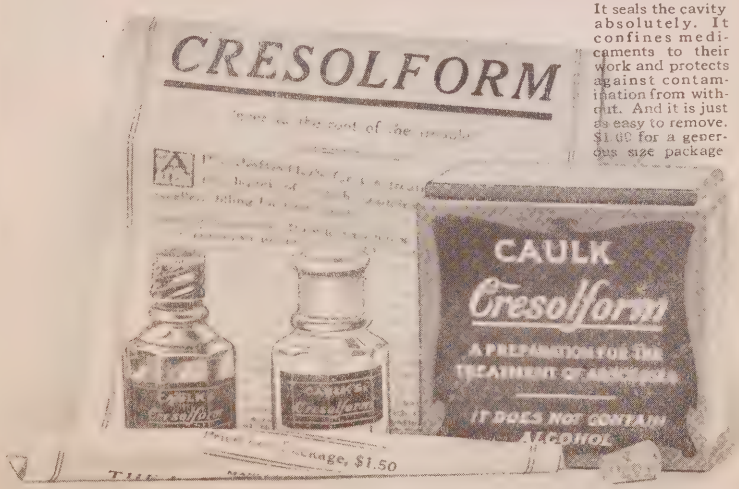
So writes a recent convert to this valuable remedy. It is equally effective in *acute or chronic cases*—cases of recent or even partial pulp death, as well as the long-standing, freely-discharging fistulous one.

THE DIRECTIONS FOR USE is a condensed treatment treatise of particular worth. It also describes the use of *CRESOLFORM* for *permanent root canal fillings.*

$1.50 A package from your dealer is returnable without question should it fail in any way.

PRO TEM *Caulk Temporary Cement* is a working companion of *Cresolform.*

It seals the cavity absolutely. It confines medicaments to their work and protects against contamination from without. And it is just as easy to remove. $1.00 for a generous size package



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TRUBYTE TEETH

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Trubyte Teeth alone among vulcanite teeth afford forms to harmonize with all the important forms in faces and natural teeth.

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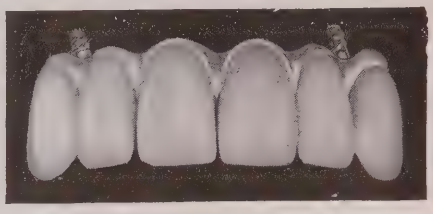


The Bridgework of Modern Dentistry

rests securely and serenely in the human mouth, *eluding detection*—because the suggestion of vulgarity, the display of gold hitherto apparently inseparable from the art of dentistry, is now eliminated.

It is made with GOSLEE TEETH. It holds a mirror to nature. It commands the admiration of patients. The patient equipped with Goslee Bridge Work is a permanent, practice-building influence for the doctor who did the work.

Send for "The Goslee Schoolmaster" and Catalog of Goslee Molds.

Consolidated Dental Mfg. Co.

137 Washington Place, New York

Ash's Popular Broaches

Coarse :: Medium :: Fine
Extra Fine :: Assorted

Per Gross :: :: $5.00

CLAUDIUS ASH, SONS & CO., Limited

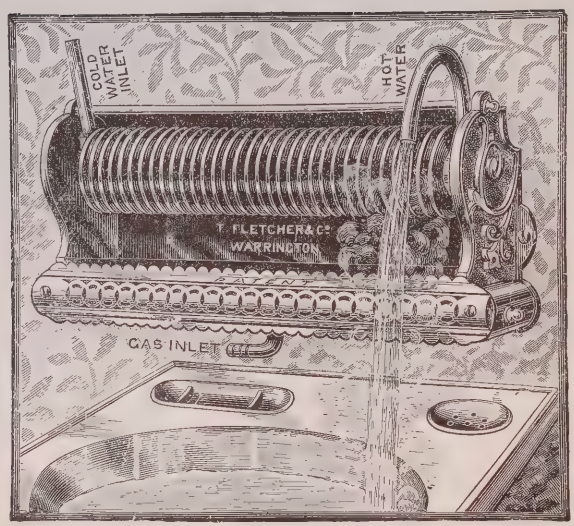
Ash's Popular Temporary Stopping

Pink :: White :: Assorted

Per Package - - - - $ .35
Three Packages - - - 1.00

CLAUDIUS ASH, SONS & CO., Limited

Instantaneous Water Heater



GIVES a steady stream of nearly boiling water. A $\frac{3}{8}$ inch clear bore gas supply is sufficient for the Heater.

Price	-	-	$15.00
"	N.P.	-	17.50

Claudius Ash, Sons & Co., Limited

Ash's Dark Elastic Rubber

Purest and Strongest

TO obtain the best results with this product bear in mind that it is all "Pure Para" and contains no colouring matter whatever. It is necessary, therefore, in vulcanization to advance the heat very slowly and vulcanize for at least one and one-half hours.

There are imitations of this rubber offered to the profession, some going even to the extreme of copying the name "Dark Elastic." Refuse these imitations, as if Ash & Son's name is not on the box and linen back the product is not ours.

Price, per pound - -	$ 5.50
Price, per 5 pounds -	24.75

Direct or through your Dealer

Claudius Ash, Sons & Co., Limited

C.A.S. "New" Copper Cement

An Ideal Cement that fulfills all requirements
...for...
Inlays - Filling or Crown and Bridge Work.

C.A.S. Copper Cement has all the qualities of our oxyphosphate of zinc cement---density---inpenetrability--constancy of liquid and fineness of powder plus the copper value.

In Four Colors

Grey - Pearl Grey - Brown - Black

Double Portion Package - $2.50

Claudius Ash, Sons & Co., Limited

Ash's C.A.S. Cement

Oxyphosphate of Zinc

Double Portion Package, $2.50
Six Color Package, $12.00

Claudius Ash, Sons & Co., Limited

1

Lancets for Abscesses, etc.

Figs. 1 and 2. For opening abscesses, trimming and smoothing filings, etc.

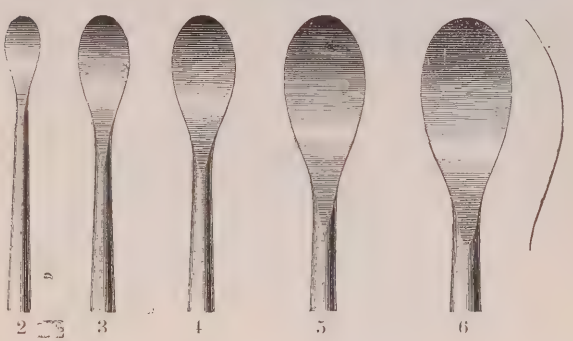
In Steel Handles, Nickel-plated,
Each - 60 cents.

Other Lancets made or obtained to order.

2

1

Kingsley's Vulcanite Finisners



The illustrations show the full size of each blade; Fig. 1 shows the full length of each handle; and the outline on the side of Fig. 6 shows the curve of the blade.

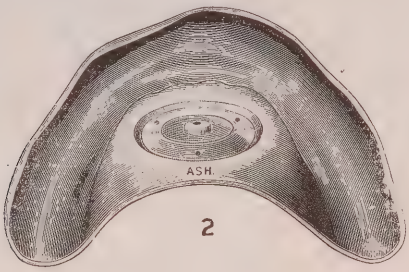
In Polished Steel, with Wooden Handles, (Figs. 1 to 6) each 60 cents

Rauhe's Improved Suction Disc for Vulcanite Dentures

PATENTED IN ENGLAND, GERMANY, FRANCE, AUSTRIA-HUNGARY, BELGIUM, THE UNITED STATES, ETC.

Rauhe's Suction Disc has been specially designed to prevent injury to the palate. It does not draw down the tissues and produce soreness in the mouth. In this respect it is greatly superior to all existing Suction Discs.

There are no parts about it which can be lost or misplaced, such as bolts or screws, etc.



It is easily kept clean, owing to the fact that the rubber disc can be removed and replaced in a few seconds, without the use of a tool of any kind.

The anchorage of the rubber disc is so simple that the patient can renew the disc when necessary.

The suction power of the disc is sufficient to hold a denture quite firmly and securely in position.

It is unnecessary to add clasps to partial sets which are fitted with Rauhe's Suction Disc.

Directions for Use.

Press the disc on the most suitable part of the plaster of Paris model with the thumb, fasten it in position with the three small pins which are supplied with it, being careful to drive the head right home, and pack the hole in the centre with dental

rubber. After the case is packed and vulcanized, strip off the tin form in which the stud is embedded; the portion in which the pins are driven should be removed first. To facilitate removal, cut through the tin, open it with a pocket knife or suitable tool, and strip it off. Should the edge of the stud be bent in stripping off the tin form, it can readily be straightened with any blunt tool. When the stud is thus cleared of the tin form, slip a rubber disc over it and the Suction Disc is ready for use. To do this, the rubber disc should be held down with the thumb of the left hand and stretched over the stud with the thumb and forefinger of the right hand.

In regard to the position in which the Suction Disc should be set on the plaster of Paris model, it will be obvious that the flattest part of the palate should be chosen. Two Suction Discs should be used on exceptionally high palates and on V-shaped palates—one on each side. In the case of large palates it is desirable to set the Suction Disc as far back as possible.

Sometimes the full power of the Suction Disc is not immediately exercised when it is first put into the mouth, but after it has been worn for some time its action will be perfectly efficient.

SPECIAL.—To remove the collar from beneath the Stud, after the case is vulcanized, insert the point of an excavator in the slit exactly opposite the letter C in the name C. Rauhe and open it out gradually, without levering it up, so as not to injure the stud.

Prices.

Aluminum-Alloy Stud with 3 India-Rubber Discs,	each	.50
	per half doz.	2.50
Extra India-Rubber Discs, any size	per doz.	.65

Claudius Ash, Sons & Co., Limited

Sole Agents

Burlew's Cleaning and Polishing Disc

Patented Feb. 1917

"The Clean Way to Clean Teeth Clean"

A rubber disc with the cleaning and polishing materials incorporated into its substance eliminating the use of pumice or chemicals in cleansing the teeth. These discs will wear down to a rough furred surface and are intended to do so as this furred and knotty surface is a very valuable factor in removing stains and smoothing the enamel. The operator may use a polishing material if he desires to do so and the furred surface will hold it better than anything else and prevent the spattering and general discomfort incident to prophylactic work.

After a little familiarity with the article the practice of adding anything to the disc will gradually be abandoned. These discs will work more rapidly than anything you have ever tried. Green stain will disappear very quickly on application of the disc, which the operator will appreciate.

GOLD INLAYS, SILVER FILLINGS AND RIGGS DISEASE.

They are very valuable in polishing Gold Inlays and Silver Fillings; the disc going into the depressions and sulci as nothing else will.

In Riggs Disease they give a much desired smoothness to the enamel after removing deposits of tartar and do not tear and irritate the gums as a brush is liable to do. In addition, there is the advantage of not being obliged to have the patient rinse the mouth every few minutes, thus saving time. Occasionally you may find a case where the disc does not seem to work as rapidly as it should; this is due to the fact that the saliva is unusually thick and ropy and acts as a lubricant and prevents the disc from taking hold. In such cases run the disc over a stone to roughen the surface and wipe away the saliva with a piece of cotton. The material is of such a nature that a thin edge will not wear long, but if operator wants to get a thin edge to go between teeth, a stone held against the revolving disc will give it an edge in an instant. These discs are sold at a price that should enable you to use a new one on each patient, but, if desired, they can be sterilized without harm.

Price, Box of Thirty Discs (wheel shape) - $1.35
Price. Box of Twenty Discs (cup shape) - 1.35

Sole Sales Agents

J. F. JELENKO & CO.

1 Union Square - New York. N.Y., U.S.A.

For Sale by

Claudius Ash, Sons & Co., Limited

7¼ inches

Hunt's Fig. 1 Self-Filling Warm-Water Syringe

Original Form

From Pattern furnished to us by Dr. W. A. HUNT, of Yeovil in 1870

THIS Original Form of Dr. Hunt's Self-Filling Warm-Water Syringe is known all over the world, and Dr. Hunt sets forth its advantages in these few simple words:

"The syringe with the spring compressed, as shown in the illustration, is put into a tumbler of warm water; thus when the Operator wants to use it the barrel is full of warm water immediately ready to his hand.

"Those who treat teeth are fully alive to the need of water in their syringe which is comfortably warm."

Syringe, nickel-plated with screw-off curved nozzle and leather plunger - $2.50

The Genuine, Original

Stents Composition

The Pioneer of all Impression Compositions has now been before the Profession for

SIXTY YEARS

(It was introduced in 1857)

and still holds the premier position as

: : : THE BEST : : :
IN THE WORLD

for taking impressions of the mouth and : : for many other useful purposes. : :

ATTEMPTS have been made to imitate STENTS COMPOSITION; even to the color of the box in which it is packed, and the color of the label on the box, have been copied, for the purpose of deceiving the unwary: hence it is necessary to say that every cake of genuine, original STENTS COMPOSITION bears the Trade Mark, which consists of the outline of two Impressions Trays, and the name

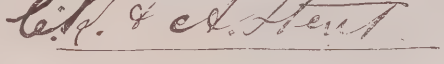
STENTS

There is no other genuine, original STENTS COMPOSITION.

Stents Composition—*Continued*

TO BE OBTAINED OF ALL DENTAL DEALERS

The label on every box bears this signature:



BEWARE OF SPURIOUS IMITATIONS

The genuine, original STENTS COMPOSITION is prepared in round cakes, pink or yellow in colour, and supplied in half-pound boxes.

Price per lb., $1.50; 3-lb. lot, $4.15; 6 lb. lot, $7.90; 10-lb. lot $12.50.

Stents Renovating Composition

This genuine, original STENTS RENOVATING COMPOSITION which is expressly prepared for mixing with used, discoloured composition to make as good as new, is prepared in round pink cakes, and also supplied in half-pound boxes.

Price per lb., $1.50

Sole Owners of the Original Recipe:

CLAUDIUS ASH, SONS & CO., Limited

5-12 Broad Street, Golden Square, London, W.

Canadian Branch—11-13 Grenville St., Toronto

The Solbrig-Platschick Press

THIS cut represents THREE aluminum Dentures, cast on this machine. It will be noticed that these three dentures are cast through ONE sprue.

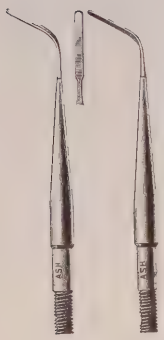
This machine is adapted for use for all sizes of work. The quality of metal it turns out has never been equalled in casting.

Complete with Furnace and Blow-pipe,
Price - $75.00

Claudius Ash Sons & Co., Limited

PLASTIC INSTRUMENTS

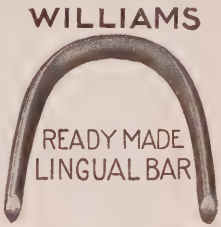
FROM PATTERNS FURNISHED BY DR. SPINDLO)



Dr. Spindlo says: "These two Cone-Socket Instruments for Amalgam Work are especially useful for finishing off fillings at the gingival margins." The blades are extremely thin and delicate and slightly twissed.

Price, Nickel-plated - each 70c.

WILLIAMS READY MADE LINGUAL BARS are properly bent, contoured, and semi-adjusted, so that with every little manipulation they can be made to fit any case. Made with both plain and corrugated ends.



Gold Case Bars

Made of WILLIAMS OVAL LINGUAL BAR 18 k. and guaranteed for 10 years.

Guages (18x12)—9x14—10x13-$1.25 each.

Made of WILLIAMS OVAL LINGUAL BAR 18 k. 1/5 the thickness of the bar, and guaranteed for 20 years. Guage, 9x14, $1.50 each.

Solid Gold Bars

Made of WILLIAMS 18 k. gold 10 per cent. platinum. Guage, 9x14, $4.00 each. Guage 10x13, $3.50 each.

Made of WILLIAMS 16 k. gold, 2 per cent. platinum. Guage, 10x13, $2.00 each.

Your Dealer or

The Williams Gold Refining Co.

REFINERS TO THE DENTAL TRADE

682 Main St - - - Buffalo, N.Y.

Prosthetic Dentistry

...Important Notice...

KNOWING how many Dental Mechanics will be compelled to join the Army, we desire as far as possible to help the members of the Dental Profession with their Mechanical Work during this grave crisis.

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LONG DISTANCE
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National Gold Products

Gold Plates of any Karat
Gold Solders -- Gold
Shells -- Gold Wires
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National Gold Solder

...Strips...

Our Solders are noted for their uniformity of color and easy flowing qualities. They can be procured from all dealers.

National Refining Co.

69 Grosvenor St.

Toronto - Ont.

Ash's Globe Copper Amalgam

(From the formula of Profs. W. D. Miller and Jung.)

Alloyed with 2½ per cent. of Tin. Recommended for colour, setting properties, and hardness.

This amalgam of Copper and Tin is the outcome of many experiments on the part of the above-mentioned eminent Professors Miller and Jung.

Price	- - -	per oz. $1.25
In 5 oz. lots	- -	per lot $5.50

At the time of its introduction Professor Miller in an exhaustive paper describing the experiments (Cor. Blatt., Apr., '94), said that the addition of tin in these proportions, viz., 2½ to 3%, was clearly proved to have the effect of lessening the chemical dissolution of the copper in the fluids of the mouth. Further, that it favourably affected the colour of the fillings, which remained grey in contrast to the black of the copper amalgams without tin. Extensive experiments for detection of shrinkage were carried out, and we have evidence from Germany, where it has been largely used since 1893, to show that in actual practice the conclusions drawn from the experiments as to its value as a filling material have been confirmed.

DIRECTIONS FOR USE.

Heat the Amalgam in a ladle until beads of mercury ooze out, crush it thoroughly in a mortar, knead well together in the hands, and use at once.

Ash's Wedge Molars

For the ends of Dentures
Made in Two Sizes

Sold only in Sets of Fours
Per Tooth 6 cents

Claudius Ash, Sons & Co.
Limited
11-13 Grenville Street
Toronto

Volume 8 Number 2

SEPTEMBER - 1918

Ash's Canadian Quarterly

Issued from Toronto, June, September, December, March

Claudius Ash, Sons & Co., Limited

CANADIAN BRANCH

11-13 Grenville Street, Toronto, Canada

Main Depot London, W., England

CONTENTS

SEPTEMBER, 1918

Advertising Section - - - - - Page 2

Original Matter—

New Rubber Supplies - - - - Page 3

The Prospect of Rubber Culture - - Page 3

Items of Interest - - - - - Page 6

Advertising Section - - - - - Page 8

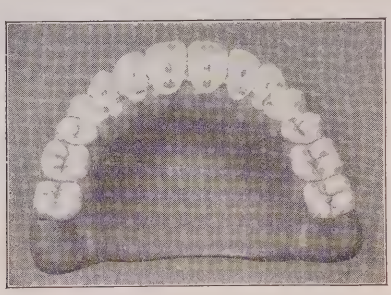
Ash's Dowel Crowns

in

Vulcanite Work

with

Baker Anchor Bar and Posts



1. The extra room which is gained in the mouth for the free action of the tongue, owing to the vulcanite not being carried so high up the teeth as is usual with pin teeth;
2. The clean and pleasant feeling which the patient experiences through the contact of the tongue with porcelain all round the arch;
3. The very natural appearance of the teeth owing to the lingual surfaces not being backed with vulcanite;
4. The pleasing shapes of the teeth and their delightful translucency;
5. The open cleansing spaces which they present, no matter how closely or irregularly the bases may be set together;
6. The way in which they lend themselves to that artistic irregularity of setting-up which conceals artificiality. These are the strongest and densest teeth in existence.

Price:

6 Dowel Crowns - -	$1. 70
8 Diatoric Posterior -	
Anchor Bar with 6 Posts -	.75

Claudius Ash, Sons & Co., Limited

Ash's Canadian Quarterly Circular

Vol. VIII. TORONTO, SEPTEMBER 1, 1918 No. 2

New Rubber Supplies

The employment of rubber in consequence of the development of technical industries, especially electro-technique and vehicular-technique (bicycles, motor-cars), has increased to such an extent that the supply of tropical rubber forests will not be sufficient for long. The region of the Republic of Liberia in West Africa is said to be capable, according to information by the African traveller, Sir Harry H. Johnston, of furnishing an almost unlimited supply of rubber. This news is astonishing, because Liberia has so far exported scarcely any rubber. Johnston has stated that in Liberia there is present an immeasurable mass of rubber, and further has told us that within the next six years we shall have at our disposal in Liberia 2½ millions of cultivated rubber trees capable of supplying African rubber of excellent quality. According to other information, there are at least 20,000 English square miles—in round numbers, 50,000 square kilometres—of the area of Liberia covered with dense rubber forests. It is furthermore mentioned that in Liberia there are several rubber-like climbing plants which hitherto have been unknown to science.

The Prospects of Rubber Culture

Besides cotton, petroleum, tobacco and coffee, rubber occupies one of the first places in the markets of the world. In the year 1903, according to the Statistical Year Book of the German Empire, there were imported 80.4 million marks' worth of raw material for the rubber industry. As the supply was considerably below the demand, this has led to a steady increase in the price of raw rubber. The rubber manufacturers calculate, according to their publica-

tions, that any moderation of the price during the next thirty years can scarcely be expected; for, in consequence of the great development of our industry, rubber has become as indispensable as coal, petroleum and so forth. Industry constantly finds new methods for the employment of this material. A lowering of the now extremely high rubber prices would immediately have in its wake new methods for its employment. The stock of raw material stored in the natural productive countries of rubber no longer suffices for the increased demands of industry, and there is an urgent need to find new sources of supply. Hence the culture of rubber by means of plantations is necessary. The zone in which rubber plants thrive includes only a few districts which economically are suitable for this culture. Borneo fulfils all demands to a high degree, likewise the island of Ceylon.

According to the *Ceylon Observer,* which is quoted by the Imperial Consul for Ceylon, there were planted in the year 1876, in the Government gardens there, about 1,700 imported saplings of the *Hevea brasiliensis,* with the intention of calling into being a plantation from which the Provinces of India might obtain saplings for rubber culture suitable to the climate. From this plantation the planters of Ceylon also obtain the trees for starting their first industrial plantations on the island.

The progress in this connection was very moderate for a long time. In the first place, because the trees require a very long time for their development until they are capable of bearing; furthermore, because there were doubts if they would supply rubber-milk in sufficient quantity; and, finally, because, in the meantime, tea culture had spread to an enormous extent. Thus, in the year 1898, there were not more than 750 acres of land planted with rubber trees. In the year 1905, however, it was calculated, according to the information forwarded by the Imperial Consul in Ceylon, that there were 25,000 acres of rubber land. In the first six months of that year there was enormous activity in the laying out of new plantations for companies and private planters.

If we take into consideration the planting of rubber trees with tea and cocoa plantations we may assume the extent of the plantation of rubber in the island of Ceylon in the middle of 1905, in round numbers, to be about 39,000 acres. Not long ago it was maintained by a prominent expert that upon the island there was

only an area of 10,000 acres fitted for the planting of *Hevea*. Since then the method of the plantation and the culture of the plant has so advanced that we can now scarcely recognize any limitation for its spreading through altitude or the productivity of the trees, the general climatic conditions and those of the soil of the island, and that it does not appear possible to give an estimate at all correct of the magnitude that may be reached by that culture.

The export of rubber from Ceylon began in the year 1889 with eleven English cwts. Since the year 1898 the Chamber of Commerce has afforded information which enables us to see the following development of the export of this material:—1898, 2,792 English lbs.; 1902, 15,592 lbs.; 1903, 44,798 lbs.; 1904, 77,212 lbs.; and 1905, up to June, 49,773 lbs.

Dar-es-Salaam, in East Africa, also has become a storing place for rubber from the interior.

The rubber-tree plantations in East Africa promise, according to the statement of Geheimrat Dr. Paasche, of the German Colonial Co., a source of great income for the colony. Through the piratical treatment of the rubber trees of the primeval forests by the negroes, production has so retrogressed that prices have enormously increased. The new plantations in East Africa have now the great advantage that already in the second year they furnish, certainly not a first-class rubber, but nevertheless a very useful article. Through a new improved method of tapping they have succeeded in obtaining from the trees a very great and increasing amount of rubber without destroying the vitality of the trees. With the increased consumption of rubber, especially in the motor-car industry, over-production or a reduction in the price worth speaking about is not to be expected. This culture will have a great future for East Africa. Less comforting, however, are the accounts in regard to the rubber culture with *Kickxia elastica* in the Cameroons.

Dr. Strunk, Director of the Institution for Trials in the culture of soil in Victoria, Cameroons, has sent out sheets of questions to suitable persons in the rubber districts in the Cameroon Mountain and in the Southern Cameroons, and on the basis of these he has made a series of comparative tapping trials. Furthermore, Strunk himself personally has undertaken tappings, and has also cut down a tree according to the manner of the natives, and has

endeavored to get the greatest quantity of rubber. In this connection he has found out the following:—The quantities indicated by Schlechter in his book, "Westafrikanische Kautschuk.-Expedition, 1899-1900," page 237, viz.: 3.4 kg. latex "milk sap" and 2 kg. rubber from trees said to be seven years old, in no case were reached even approximately. Trees seven years old are about 12 m. high, and 1 m. above the soil have a circumference of 50-60 cm. By felling such a tree, and exhaustively tapping it as is customary with the piratical method, Strunk only obtained 74 grs. of rubber. In the Southern Cameroon district, certainly, the quantities in latex and also in rubber are double as great as on the Cameroon Mountain. It does not, however, appear possible, according to the views prevalent, to tap in the following year trees which have been exhaustively tapped already, with the same result. The writer finds that in the beginning of the year 1905, in consequence of the produce being far behind expectations as regards the latest trial plantations, there was a feeling of depression among the planters. Even if, with older trees, the harvest is a little better, we can recognize already that the hopes which were harbored at first in regard to the extra profuse supply of *Kickxia* plantations were not justified.

From this it is clear that in regard to the import of rubber we shall for a long time yet be dependent upon foreign parts, *i.e.*, foreign colonies.

Items of Interest

Model Making.

Cause of the Change of Shape Occurring in Plaster after Setting, and the Remedy.—All the various processes of casting, flasking, packing and vulcanizing should be carried out as soon as possible, for the following reasons:—

In Rose's work on "Vulcanite in Dentistry," pages 6 and 7, you will find reference made to a change occurring in plaster models due to the crystallization of the plaster, to avoid which it is recommended to cast the model as wide as it is deep. This certainly equalizes the shrinkage due to the crystallization of the plaster, but I wish to draw attention to another and equally serious defect which may result from the drying out of the plaster: this change can be remedied. Take a metal tray, preferably one with

a deep palate, and cast an ordinary model. After the plaster has set, say in half an hour, remove the model and weigh it. You will find that little change occurs for the next twenty-four hours, when a loss in weight begins and goes on until the model loses roughly one-sixth of its original weight. Coincident with this loss in weight is a change in shape. If the model is soaked in water, the weight returns to the original and the shape is almost restored. My attention was drawn to this fact by noting that models put by for a time would not go to place on the jaw of the Gysi articulator, but when soaked did so perfectly. The jaw being tapered showed up any defect at once. I conclude from this that it is simply the drying of the model that affects the fit of a finished plate—ignoring for the moment the slight shrinkage of vulcanite—and for this reason it is better to complete the various processes as soon as possible. Recently a gold lower, struck up on a zinc die made from a model which was *not* dried and stearined, fitted better than any done for some time.—A. G. Attenborough, L.D.S. Eng., F.P.S. Glas., in *British Dental Journal.*

The Gold Currency in Germany.

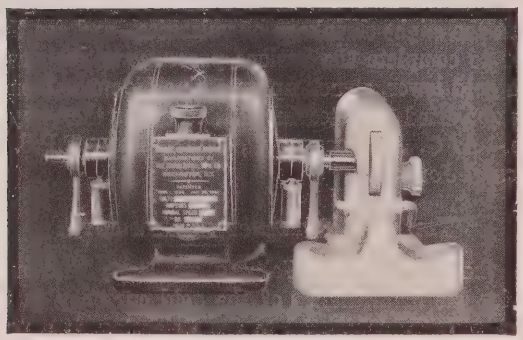
From the *Frankfurter Zeitung* we learn that among the measures for the maintenance of the gold currency in Germany, which were recently submitted to the Reichstag, is a proposal to cut down the supply of gold for dental purposes by 25 per cent.—*British Dental Journal.*

Vulcanizing.

What is porosity in vulcanizing? I know this condition can be brought about by careless packing quite apart from incorrect vulcanizing. Perhaps I should say from too much care, as if the flask is left boiling too long the rubber absolutely boils, and steam blebs form. They are easily seen in an upper plate, but not so easily in a lower. If the gates are large, practically no pressure on the rubber is exerted on an overheated flask and the finished plate may be porous.

A heat short of boiling is desirable, so that the rubber can be packed solidly. A hollow plate can be made by enclosing a drop of water in a chamber of rubber, so be careful to keep steam out of the rubber.—A. G. Attenborough, L.D.S. Eng., F.P.S. Glas., in *British Dental Journal.*

Chayes
Grinding Attachment

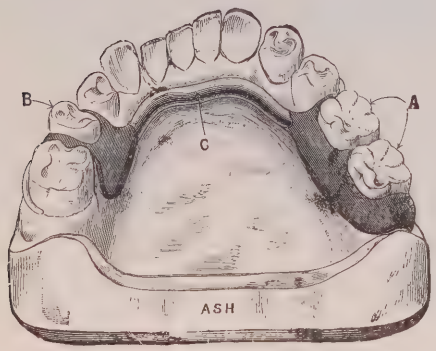


Owing to the necessity of conserving your Gold Scrap—this attachment will will more than pay for itself.

Claudius Ash, Sons & Co., Limited

Ash's Oval Gold Case Wire

For Bar Lowers



Bar Lower Dentures have come into universal demand. Note some of their advantages.

No tendency to push teeth outwards.

Greater cleanliness.

Less bulk.

Greater rigidity.

Per dwt.	-	-	$ .50
18 kt. Gold	-	-	1.35

Claudius Ash, Sons & Co., Limited

Ashalloy Wire

WE have pleasure in placing in the hands of the Profession a new Alloy specially prepared and manufuctured for Dental Work.

Owing to the continued prohibitive price of Platinum it has been our object for a considerable time past to provide an efficient substitute for Dental Alloy, and we feel confident after many experiments that we have in Ashalloy a metal that will fulfill all requirements in a full and complete manner.

We have put this Alloy to exhaustive tests in a practical way both in and out of the mouth, and have received most favorable reports from some of the leading mechanical workers in the profession.

Ashalloy is composed of Precious Metals, is easily soldered with any solder ordinarily used for Dental Alloy, its melting point being approximately the same as that metal.

Sold only in lengths of about 2 Dwts.
Price - $1.50 per dwt.

Claudius Ash, Sons & Co., Limited

National Gold Products

Gold Plates of any Karat
Gold Solders -- Gold
Shells -- Gold Wires
Clasping Disks

National Gold Solder
...Strips...

Our Solders are noted for their uniformity of color and easy flowing qualities. They can be procured from all dealers.

National Refining Co.
69 Grosvenor St.
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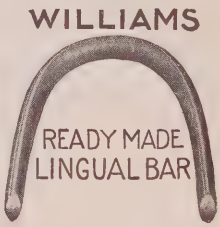
Ash's Popular Broaches

Coarse :: Medium :: Fine
Extra Fine :: Assorted

Per Gross :: :: $5.00

CLAUDIUS ASH, SONS & CO., Limited

WILLIAMS READY MADE LINGUAL BARS are properly bent, contoured, and semi-adjusted, so that with every little manipulation they can be made to fit any case. Made with both plain and corrugated ends.



Gold Case Bars

Made of WILLIAMS OVAL LINGUAL BAR 18 k. and guaranteed for 10 years.

Gauges (18x12)—9x14—10x13-$1.25 each.

Made of WILLIAMS OVAL LINGUAL BAR 18 k. 1/5 the thickness of the bar, and guaranteed for 20 years. Gauge, 9x14, $1.50 each.

Solid Gold Bars

Made of WILLIAMS 18 k. gold 10 per cent. platinum. Gauge, 9x14, $4.00 each. Guage 10x13, $3.50 each.

Made of WILLIAMS 16 k. gold, 2 per cent. platinum. Gauge, 10x13, $2 00 each.

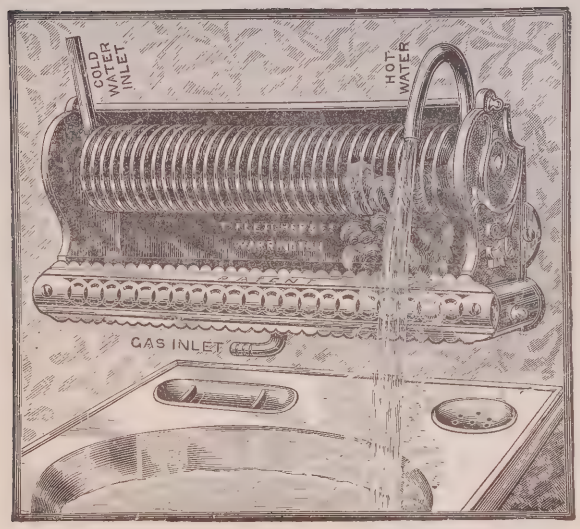
Your Dealer or

The Williams Gold Refining Co.

REFINERS TO THE DENTAL TRADE

682 Main St. - - - Buffalo, N.Y.

Instantaneous Water Heater



GIVES a steady stream of nearly boiling water. A $\frac{3}{8}$ inch clear bore gas supply is sufficient for the Heater.

Price	- -	$15.00
" N.P.	-	17.50

Claudius Ash, Sons & Co., Limited

The best denture you can make with.....

TRUBYTE TEETH

is the best denture you can make

Trubyte Teeth alone among vulcanite teeth afford forms to harmonize with all the important forms in faces and natural teeth.

THE DENTISTS' SUPPLY COMPANY OF NEW YORK

SOLE MANUFACTURERS OF TRUBYTE TEETH

220 WEST 42ND ST. NEW YORK

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"Causes and Effects of Pyorrhea"

Just Off the Press

AN invaluable treatise on the subject of Pyorrhea. The causes and the effects of the disease are concisely presented and its treatment and prevention and general oral prophylaxis by the Dentinol and Pyorrhocide Method are described by comprehensive text matter and numeruus illustrations.

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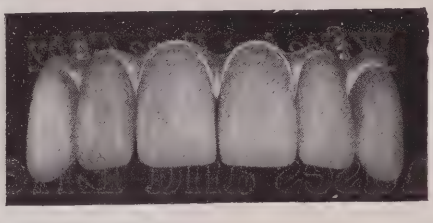

The Bridgework of Modern Dentistry

rests securely and serenely in the human mouth, *eluding detection*—because the suggestion of vulgarity, the display of gold hitherto apparently inseparable from the art of dentistry, is now eliminated.

It is made with GOSLEE TEETH. It holds a mirror to nature. It commands the admiration of patients. The patient equipped with Goslee Bridge Work is a permanent, practice-building influence for the doctor who did the work.

Send for "The Goslee Schoolmaster" and Catalog of Goslee Molds.

Consolidated Dental Mfg. Co.

137 Washington Place, New York

1

Lancets for Abscesses, etc.

Figs. 1 and 2. For opening abscesses, trimming and smoothing filings, etc.

In Steel Handles, Nickel-plated,
Each - 60 cents.

Other Lancets made or obtained to order.

2

THE L. D. CAULK COMPANY

"SYNTHETIC" for PERMANENCE

Whether it be——

For the simplest cervical filling
For large interproximal restorations
For corners, tips, or jacket crowns
For interchangeable tooth cementation
For broken facing replacements

DE TREY'S SYNTHETIC PORCELAIN

Has established for itself a reputation for permanence in every one of these many uses.

It is a fixture of dentistry wherever dentistry is practiced.

SYNTHETIC PORCELAIN
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Your address on a postal will bring any or all of these pamphlets.

They cover every use and answer every question on de TREY'S SYNTHETIC PORCELAIN

THE L.D.CAULK COMPANY
THE WORLDS GREATEST LABORATORIES for the manufacture of DENTAL FILLING MATERIALS
DE PEYS PITTSBURGH HUNTINGTON, W.VA. PHILADELPHIA, PENNA.
TORONTO CANADA MILFORD DELAWARE

THE L.D. CAULK COMPANY

THE WORLDS GREATEST LABORATORIES for the manufacture of DENTAL FILLING MATERIALS

DEPOTS: PITTSBURGH, HUNTINGTON, W. VA., PHILADELPHIA, PENNA. — TORONTO, CANADA, MILFORD, DELAWARE

"*ABSCESS TREATMENTS* have lost all their terrors since *CRESOLFORM* is a regular member of my drug cabinet."

So writes a recent convert to this valuable remedy. It is equally effective in *acute or chronic cases*—cases of recent or even partial pulp death, as well as the long-standing, freely-discharging fistulous one.

THE DIRECTIONS FOR USE is a condensed treatment treatise of particular worth. It also describes the use of *CRESOLFORM* for *permanent root canal fillings*.

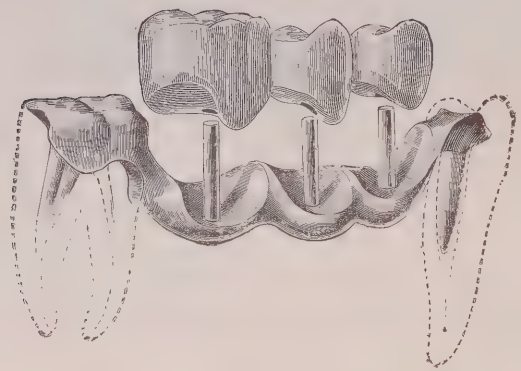
$1.50 A package from your dealer is returnable without question should it fail in any way.

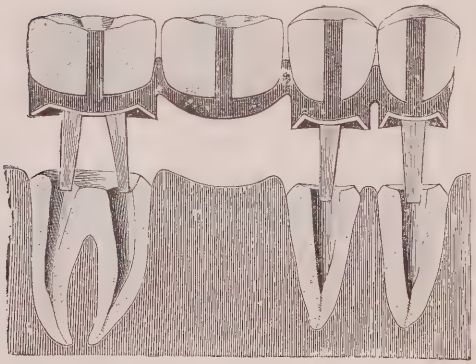
PRO TEM *Caulk Temporary Cement* is a working companion of *Cresolform*.

It seals the cavity absolutely. It confines medicaments to their work and protects against contamination from without. And it is just as easy to remove. $1.00 for a generous size package.

Ash's Tube Teeth

The strongest and simplest Tooth for Bridge Work

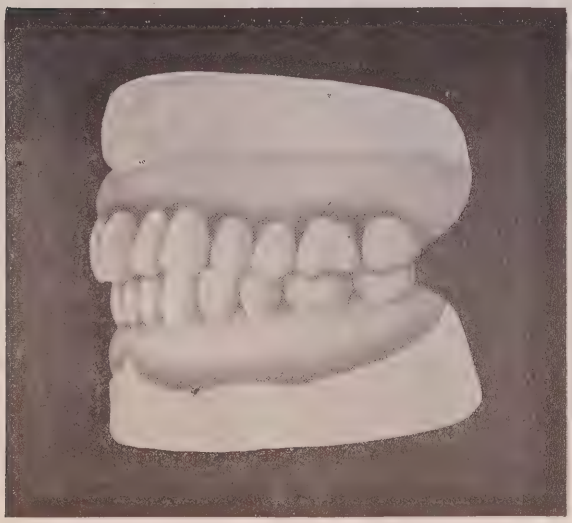




Non-Platinum Tube Teeth - Each 25 cents
Per Hundred, $22.50

Claudius Ash, Sons & Co., Limited

Ash's Diatoric Teeth



IF they have been less extensively advertised than some other manufacturers, the explanation is to be found in the fact that their popularity, due to the recognition of their utility, has been so great that the demand has exceeded the supply, this is the best advertisement that any article can have.

Per Set of 8 Posterior	- -	$0.52
" " 14	- -	0.90
" " 28	- -	1.80

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C.A.S. "New" Copper Cement

An Ideal Cement that fulfills all requirements

...for...

Inlays - Filling or Crown and Bridge Work.

C.A.S. Copper Cement has all the qualities of our oxyphosphate of zinc cement---density---inpenetrability--constancy of liquid and fineness of powder plus the copper value.

In Four Colors

Grey - Pearl Grey - Brown - Black

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The Solbrig-Platschick Press

THIS cut represents THREE aluminum Dentures, cast on this machine. It will be noticed that these three dentures are cast through ONE sprue.

This machine is adapted for use for all sizes of work. The quality of metal it turns out has never been equalled in casting.

Complete with Furnace and Blow-pipe,
Price - $75.00

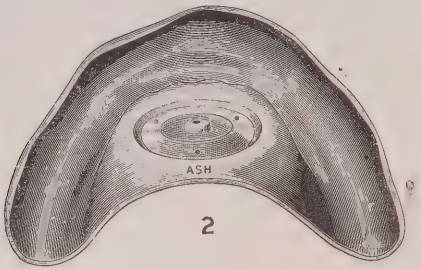
Claudius Ash, Sons & Co., Limited

Rauhe's Improved Suction Disc for Vulcanite Dentures

PATENTED IN ENGLAND, GERMANY, FRANCE, AUSTRIA-HUNGARY, BELGIUM, THE UNITED STATES, ETC.

Rauhe's Suction Disc has been specially designed to prevent injury to the palate. It does not draw down the tissues and produce soreness in the mouth. In this respect it is greatly superior to all existing Suction Discs.

There are no parts about it which can be lost or misplaced, such as bolts or screws, etc.



It is easily kept clean, owing to the fact that the rubber disc can be removed and replaced in a few seconds, without the use of a tool of any kind.

The anchorage of the rubber disc is so simple that the patient can renew the disc when necessary.

The suction power of the disc is sufficient to hold a denture quite firmly and securely in position.

It is unnecessary to add clasps to partial sets which are fitted with Rauhe's Suction Disc.

Directions for Use.

Press the disc on the most suitable part of the plaster of Paris model with the thumb, fasten it in position with the three small pins which are supplied with it, being careful to drive the head right home, and pack the hole in the centre with dental

rubber. After the case is packed and vulcanized, strip off the tin form in which the stud is embedded; the portion in which the pins are driven should be removed first. To facilitate removal, cut through the tin, open it with a pocket knife or suitable tool, and strip it off. Should the edge of the stud be bent in stripping off the tin form, it can readily be straightened with any blunt tool. When the stud is thus cleared of the tin form, slip a rubber disc over it and the Suction Disc is ready for use. To do this, the rubber disc should be held down with the thumb of the left hand and stretched over the stud with the thumb and forefinger of the right hand.

In regard to the position in which the Suction Disc should be set on the plaster of Paris model, it will be obvious that the flattest part of the palate should be chosen. Two Suction Discs should be used on exceptionally high palates and on V-shaped palates—one on each side. In the case of large palates it is desirable to set the Suction Disc as far back as possible.

Sometimes the full power of the Suction Disc is not immediately exercised when it is first put into the mouth, but after it has been worn for some time its action will be perfectly efficient.

SPECIAL.—To remove the collar from beneath the Stud, after the case is vulcanized, insert the point of an excavator in the slit exactly opposite the letter C in the name C. Rauhe and open it out gradually, without levering it up, so as not to injure the stud.

Prices.

Aluminum-Alloy Stud with 3 India-Rubber Discs, each		.50
	per half doz.	2.50
Extra India-Rubber Discs, any size	per doz.	.65

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Sole Agents

Porcelain Trays

Drawer of Allan Table with six large and three small Porcelain Trays—about half size.

Porcelain Trays, each - 15 cents.

Claudius Ash, Sons & Co., Limited

Porcelain Trays—*Continued*

Divided Down the Middle. For Long Handled Instruments.

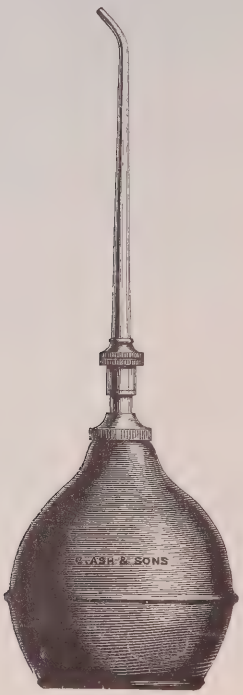
The two small sizes of Porcelain Trays for small instruments and useful sundries have been so favorably received by the Profession that we have decided to add the size here illustrated to our stock for long-handled instruments.

It is made to fit the drawer of Allan's Bracket Table, the outside dimensions being $7\frac{3}{4}$ in. long, $4\frac{3}{4}$ in. wide by $\frac{3}{4}$ in. deep, but it can be lifted out of the drawer if desired and used in any situation most convenient to the operator.

It is perfectly aseptic, and practically equal to new each time it is cleaned.

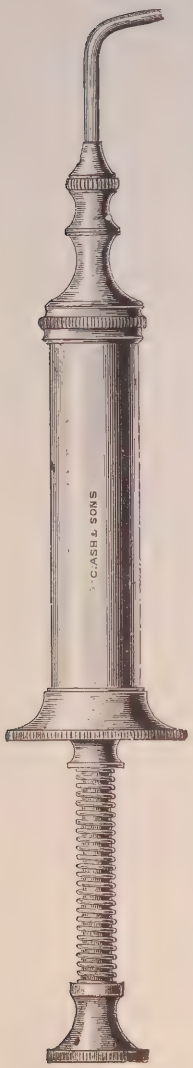
Price each - 75 cents.

Ash's Fig. 2 Chip Syringe



THIS Chip Syringe has been so long and favourably known that it needs no further description, other than to advise you that it is as well made as ever and will outlast all other kinds.

Price	- -	$1.00
Extra Bulbs	-	.65



7¼ inches

Hunt's Fig. 1 Self-Filling Warm-Water Syringe

Original Form

From Pattern furnished to us by Dr. W. A. HUNT, of Yeovil in 1870

THIS Original Form of Dr. Hunt's Self-Filling Warm-Water Syringe is known all over the world, and Dr. Hunt sets forth its advantages in these few simple words:

"The syringe with the spring compressed, as shown in the illustration, is put into a tumbler of warm water; thus when the Operator wants to use it the barrel is full of warm water immediately ready to his hand.

"Those who treat teeth are fully alive to the need of water in their syringe which is comfortably warm."

Syringe, nickel-plated with screw-off curved nozzle and leather plunger - $2.50

Ash's Globe Copper Amalgam

(From the formula of Profs. W. D. Miller and Jung.)

Alloyed with 2½ per cent. of Tin. Recommended for colour, setting properties, and hardness.

This amalgam of Copper and Tin is the outcome of many experiments on the part of the above-mentioned eminent Professors Miller and Jung.

Price..... per oz. $1.25
In 5-oz. lots.....per oz. 1.15

At the time of its introduction Professor Miller in an exhaustive paper describing the experiments (Cor. Blatt., Apr., '94), said that the addition of tin in these proportions, viz., 2½ to 3%, was clearly proved to have the effect of lessening the chemical dissolution of the copper in the fluids of the mouth. Further, that it favourably affected the colour of the fillings, which remained grey in contrast to the black of the copper amalgams without tin. Extensive experiments for detection of shrinkage were carried out, and we have evidence from Germany, where it has been largely used since 1893, to show that in actual practice the conclusions drawn from the experiments as to its value as a filling material have been confirmed.

DIRECTIONS FOR USE.

Heat the Amalgam in a ladle until beads of mercury ooze out, crush it thoroughly in a mortar, knead well together in the hands, and use at once.

Burlew's Cleaning and Polishing Disc

Patented Feb. 1917

"The Clean Way to Clean Teeth Clean"

A rubber disc with the cleaning and polishing materials incorporated into its substance eliminating the use of pumice or chemicals in cleansing the teeth. These discs will wear down to a rough furred surface and are intended to do so as this furred and knotty surface is a very valuable factor in removing stains and smoothing the enamel. The operator may use a polishing material if he desires to do so and the furred surface will hold it better than anything else and prevent the spattering and general discomfort incident to prophylactic work.

After a little familiarity with the article the practice of adding anything to the disc will gradually be abandoned. These discs will work more rapidly than anything you have ever tried. Green stain will disappear very quickly on application of the disc, which the operator will appreciate.

GOLD INLAYS, SILVER FILLINGS AND RIGGS DISEASE.

They are very valuable in polishing Gold Inlays and Silver Fillings; the disc going into the depressions and sulci as nothing else will.

In Riggs Disease they give a much desired smoothness to the enamel after removing deposits of tartar and do not tear and irritate the gums as a brush is liable to do. In addition, there is the advantage of not being obliged to have the patient rinse the mouth every few minutes, thus saving time. Occasionally you may find a case where the disc does not seem to work as rapidly as it should; this is due to the fact that the saliva is unusually thick and ropy and acts as a lubricant and prevents the disc from taking hold. In such cases run the disc over a stone to roughen the surface and wipe away the saliva with a piece of cotton. The material is of such a nature that a thin edge will not wear long, but if operator wants to get a thin edge to go between teeth, a stone held against the revolving disc will give it an edge in an instant. These discs are sold at a price that should enable you to use a new one on each patient, but, if desired, they can be sterilized without harm.

Price, Box of Thirty Discs (wheel shape) - $1.35
Price, Box of Twenty Discs (cup shape) - 1.35

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J. F. JELENKO & CO.

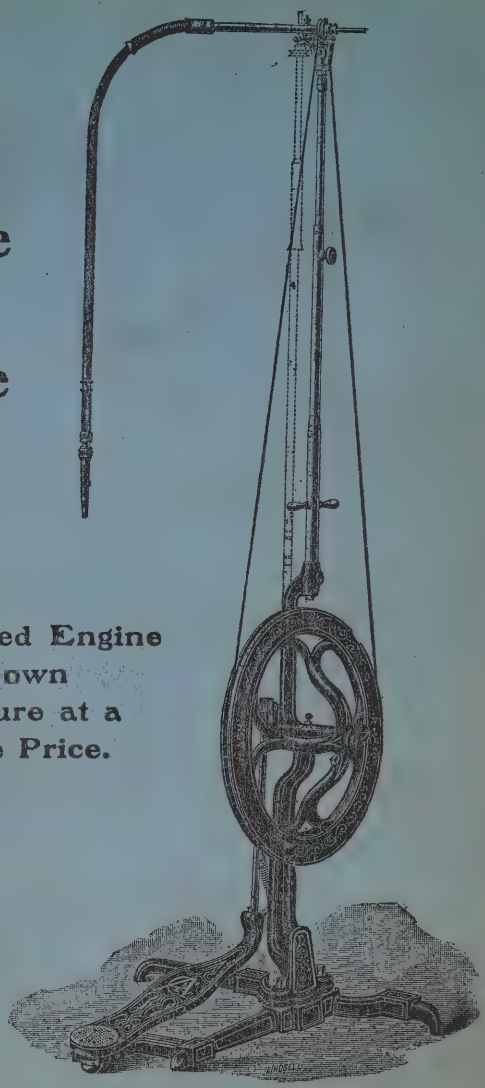
1 Union Square - New York. N.Y., U.S.A.

For Sale by

Claudius Ash, Sons & Co., Limited

STUDENTS' EQUIPMENTS

Ash's C Style Foot Engine



A Guaranteed Engine of our own Manufacture at a Moderate Price.

Volume 8 Number 3

DECEMBER - 1918

Ash's Canadian Quarterly

Issued from Toronto, June, September, December, March

Claudius Ash, Sons & Co., Limited

CANADIAN BRANCH

11-13 Grenville Street, Toronto, Canada

Main Depot London, W., England

CONTENTS

DECEMBER, 1918

Advertising Section - - - - - Page 2

Original Matter—

Notes on the Principles and Results of Treatment in 200 Cases of Injuries to the Face and Jaws - - - - Page 3

Advertising Section - - - - - Page 12

To the Members of the Dental Profession

We carry complete stocks of the following Artificial Teeth in *addition* to those of our own manufacture---

Steele's Interchangeable Teeth
Goslee Interchangeable Teeth
Twentieth Century Crowns
D. S. Crowns
Twentieth Century Teeth
Trubyte Teeth
D. S. Pointed Pin Facings

Claudius Ash, Sons & Co., Limited

Ash's Canadian Quarterly Circular

Vol. VIII. TORONTO, DECEMBER 1, 1918 No. 3

Notes on the Principles and Results of Treatment in 200 Cases of Injuries to the Face and Jaws*

By Captain W. MAXWELL MUNBY, R.A.M.C. (T.F.),
Captains A. ALAN FORTY and A. D. SHEFFORD,
Dental Officers,
Department for Treatment of Injuries to the Face and Jaws, 2nd Northern General Hospital, Leeds.

It has been truly said that "the excellence of every art depends upon the complete accomplishment of its purpose," and it is the intention of this communication to classify and systematise the results obtained in 200 cases of face and jaw injuries treated in a special department of a general hospital. These cases belong to a series, and have not been specially selected, so that our results may not be suspected of partiality.

Much has been written hitherto by British, colonial, and foreign authors describing principles of treatment, specifying types of splints and apparatus employed, outlining the procedure in dealing with cases seen early and late, devising nomenclature, etc.—all essential in an exhaustive treatise on jaw surgery and jaw orthopaedics. Little, however, has been published giving results of treatment, tabulating the duration of stay in hospital, destination of the patient, whether returned to duty, etc. The present contribution essays to meet this need, and we trust it may stimulate the publication of others from the various special centres where the treatment of jaw and face injuries is undertaken.

In our series of 200 cases, 145 were admitted with definite injury to bone; the remaining 55 were suffering from injuries to the soft parts only, giving rise to various disabilities.

*Reprinted from *The British Journal of Surgery*, July, 1918.

Injuries to Bone.

Table I.—Showing the Number and Percentage of Mandibular and Maxillary Fractures (exclusive of Alveolar Fractures), and of Alveolar Fractures.

Part Fractured	Number	Percentage
Mandibular fractures:—		
(a) United on admission	15	10·4
(b) Incomplete	9	6·2
(c) Complete	95	65·5
	—119	
Maxillary fractures	8	5·5
Alveolar fractures	18	12.4
Total	145	100·0

Fractures of the Mandible.

(a) *United on Admission.*—This class consists of 15 cases, all of which required prosthetic treatment, many of them surgical or other treatment in addition—such as attention to sinuses, and extractions—similar to that frequently necessary in complete fractures.

(b) *Incomplete Fractures.*—There were nine of these cases, in eight of which there was a crack either at the angle or in the body of the jaw, while in the ninth a small fragment was detached from the anterior border of the ascending ramus.

(c) *Complete Fractures.*—This class consists of 95 cases, which are classified in Table II. according to the region in which they occur.

Table II.—Classified List of Complete Mandibular Fractures.

Site of Fracture	Number	Percentage
Mesial or incisor region	26	27·4
Canine, premolar, or molar region	32	33·7
Angle	21	22·1
Ascending ramus, including condyle and coronoid	10	10·5
Multiple	6	6·3
Total	95	100·0

It is often difficult to locate fractures definitely to any one region, so that the above classification has been adopted merely for convenience, and is more or less arbitrary.

The amount of comminution present depends upon the nature and velocity of the projectile, the angle at which the blow is received, and the distance which the missile has travelled before impact. In the majority of gunshot wounds there is considerable comminution, while in "civil" fractures (due to kicks, blows, or falls)—of which there are 14 in this series—there is, on the other hand, little or no comminution.

Fractures of the Maxilla.—Excluding alveolar fractures, there are only eight cases in this class. Of these, seven were injuries to the hard plate, varying in extent, opening into the nasal cavities or maxillary sinuses. The eighth was a horizontal fracture above the palatine vault.

Fractures of the Alveolus.—This class consists of 18 cases. They were met with in one or both jaws, and varied considerably in extent. They are associated with fracture of the teeth.

False Trismus or Limitation of Mouth Opening.

This clinical condition has been met with in 66 out of the whole series of 200 cases; in 25 of these it was definitely associated with fracture of the mandible; in the remaining 41, fracture either had been definitely excluded by X-ray examination or was very doubtful.

In all cases of definite fracture the site of the injury has been either in the ascending ramus or angle and in such it is obvious that the muscles of mastication have been involved. Where fracture is absent or doubtful, the injury has been of such nature as to involve some fibres of the masseter, temporal, or pterygoid muscles.

The condition in many of the cases is largely due to slight spasm of the muscular tissue resulting from injury, and is easily and rapidly overcome without recurrence. In other cases it results from the presence of scar tissue limiting movement. These are more obstinate, especially where the temporal muscle is affected, and recurrence is more probable. In a third class—the most obstinate of all—the condition is due to functional spasm of all the muscles attached to the mandible.

Uncomplicated Injuries to Soft Parts.

There were 14 cases suffering from slight disability due to the presence of a foreign body or pain in the scar during mastication. They require no further comment.

Principles of Treatment.

A brief *résumé* of the treatment—as far as it could be ascertained—which had been carried out previous to admission to this hospital may be of interest. In the majority of cases the only earlier treatment had been directed to the soft parts, and the bony injury had been neglected. In a few cases wounds had been sutured and foreign bodies removed. The following arteries had been ligatured for secondary haemorrhage: external carotid once; facial twice; lingual and temporal once each. Tracheotomy and laryngotomy had each been done once. Splints had been applied to one or both jaws in 19 cases. In the majority of these the mouth was in a very septic condition, and the splints had to be removed almost immediately. Obviously many teeth had been retained which were not only useless but detrimental to recovery.

Early routine treatment is directed to the control and elimination of sepsis, the care of external wounds, and maintenance of the patient's health. Patients are instructed in oral hygiene, whilst constant lavage is carried out by the nursing staff. The patient's diet is arranged according to his ability to deal with certain types of foods, and follows fairly closely, with certain modifications, the scheme advanced by Captain Holt, at one time medical officer in charge of Croydon Jaw Hospital.

The study of radiographs always precedes any decision upon the necessary subsequent treatment; these radiographs are taken from as many aspects as are considered advisable. As a result a definite line of treatment is suggested, and the preliminary stage consists in the removal of teeth, or roots of teeth, involved in the area of fracture, except in those cases where retention is temporarily considered advisable from the point of view of controlling fragments otherwise devoid of efficient anchorage. In some cases a cast cap-splint is loosely adjusted within twenty-four hours of the removal of such teeth, so that displacement may be effectually controlled, and such a splint is not cemented in place until any sepsis which may be present is well under control.

In the vast majority of gunshot wounds of the face and jaws,

comminution of bone and loss of tissue results, together with certain types of resultant displacement of the fragments, and often facial asymmetry. The re-establishment of a normal occlusion and orientation of the dental arch is never sought at the expense of bony union. In those cases in which comminution and tissue loss are absent (in some gunshot fractures, but especially in fracture of a "civil" nature) the restoration of the normal occlusion is perfectly compatible with bony union; while in cases where tissue loss is very extensive (often above 4 cm.) any idea of ultimate bony union is generally impracticable, and the normal occlusion is restored so far as it is possible to do so, the future of the case depending upon the efficacy of "bone-grafting operations."

The essential importance of retaining (especially in the more extensive fractures) all pieces of bone which have adhered to the periosteum must be insisted upon, as such vital foci are eminently necessary in the process of ossification, acting as grafts in the process of repair, whilst their removal lessens the incidence of osseous and tends to promote fibrous union. More than one case which has resulted in fibrous union can be definitely traced to the removal of such bone fragments. This, of course, cannot be said to apply to alveolar bone, which exerts no influence on the reparative process. Neither granulation tissue, nor the subsequent callus, is laid down beyond a limited distance from the mother tissue, and reparative callus cannot bridge across definite gaps, so that the presence of such foci of ossification is very essential.

Bony union once obtained, the correction of any abnormal occlusion is proceeded with. In many cases, all that is necessary is the adaptation of a prosthetic appliance owing to the man's poor natural denture; whilst in others various orthodontic appliances are used. This stage is carried out when, although the mobility of fragments is arrested by callus formation, yet such callus is still capable of extension and manipulation under mechanical force. Obviously this stage should not be delayed until after the ossification of the callus.

For immobilization of fragments, the cast cap-and-bar splint is universally used, either singly, or in some cases in the intermaxillary form (especially where only a few teeth are available). These splints are easily cleaned, comfortable, and eminently successful.

Fibrous union is treated by a suitable prosthetic appliance. Bone-grafting is being tried in some cases, and we hope to make a communication on the subject later.

Sinuses which persist after two or three curettings, combined with the use of 20 per cent. lactic-acid packing or chloramine paste, are treated by cutting down upon the bone, exposing it freely, and removing sequestra which maintain the infection.

Limitation of opening of mouth yields more or less readily to intermittent screw-gag pressure—a modified Holt pattern, or lever arm gag —accompanied by massage, which is also given as a routine procedure in the majority of cases of mandibular fracture.

In this series there were 11 cases requiring plastic operations. Three of these only required readjustment of the red margin of the lip, the scar being first excised; and two required the closing of a fistulous communication with the mouth: these call for no comment. Four required more extensive operations on the lower lip. In these and in all such cases where the normal contour of the dental arch is destroyed by loss of teeth, etc., this is restored by a vulcanite appliance which is fitted before plastic procedure is undertaken; this acts as a framework on which to remodel the soft parts. Only one of these cases calls for comment. The patient had had the middle fourth of the lower lip blown away to the depth of 1 inch. Incisions were made on each side parallel to the lip at the level of the lower margin of the gap, and extending over the mandible to the neck, and the soft parts were freed from the deeper structures sufficiently to allow the two margins of the lip to be sutured and so obliterate the gap. The mouth was thus made slightly smaller, but not unduly so. Of the remaining two cases, one was a scar excision calling for no further notice. The other was a pensioner who, in addition to fracture of the lower jaw, had received considerable injuries to the left cheek and malar bone, with destruction of the facial nerve and left eye. There was drooping of the cheek and left angle of the mouth, causing considerable deformity. An injection of wax was made just above and external to the left angle of the mouth, and a strip of fascia lata half an inch wide was removed from the thigh a few weeks later, after making incisions over the zygoma and above and below the wax depôt. The fascia was passed from the zygomatic wound through the cheek substance, first deep to the wax depôt, then superficial to it back to the zygomatic wound,

where both ends were sutured to the fascia over the zygoma, the angle of the mouth being over-elevated. This operation, combined with scar excision, considerably improved the appearance of the patient.

Results.

Table III.—Showing the Final Disposal of the Men in this Series of 200 Cases.

Disposal	Number	Percentage
Returned to duty	175	87·5
Discharged from the Army	13	6·5
Transferred to other hospitals	7	3·5
Pensioners admitted as such	4	2·0
Death	1	0·5
Total	200	100·0

The average stay in hospital was 104 days.

This analysis of 200 cases is an attempt to record the ultimate results obtained in some of the earlier cases seen by us in 1916-1917, and it is our hope to publish some further statistics and results of the large number of face and jaw injuries—well over 1,000 to date—which have been treated in this special centre.

It is perhaps a truism to mention the invaluable aid in diagnosis and treatment rendered by accurate radiographs taken—as soon as a case is admitted, and serially—to demonstrate the changing conditions as a case progresses; and we have received great assistance in this work from Captain Stansfield, the radiographer to the hospital.

Table IV.—The Results of Treatment in Fractures of the Mandible, with the Sites in which Non-union occurred.

Result	Number	Percentage
Bony union	80	83·9
Non-union, angle	1	1·1
" lateral	5	5·3
" mesial	2	2·2
" multiple	2	2·2
" ascending ramus	5	5.3
Total	95	100·0

In all except three of these cases of non-union, the shortest period elapsing

between injury and admission to hospital was two and a half months, and the average period was a little over ten months.

The following selection from the above series illustrates some of the typical cases and their subsequent treatment:—

Case 1.—Wounded by shrapnel, April 9, 1917. Admitted April 23. Radiography shows a comminuted fracture of the symphysis region, and a triangular fragment detached from lower border of mandible in this region. Alveolar process carrying 5.4.3. practically detached; and these teeth. together with several septic roots of mandibular molars, were removed. On June 4 an intermaxillary cap-and-bar splint (metal Gunning) was adjusted. Sept. 1, splint was removed and union had resulted. Lack of occluding power owing to deficiency of mandibular teeth made good by an artificial denture.

Case 2.—Bullet wound, Nov. 13, 1916. Admitted Jan. 3, 1917. Previously, a cap splint had been cemented in place. Oral condition extremely septic. No union had occurred. Wound of entry still persisted on right side of chin. Point of exit was on left side of chin, and a comminuted fracture in the right canine and premolar region resulted. There was some displacement; the lesser fragment had been drawn inwards, to be overlapped by the larger (left) fragment, which had been drawn round to injured side. Second premolar of left side was seen to be directly in the area of fracture, and was removed. Although tissue lost is considerable, several bony foci remain—which are of essential value in ultimately gaining bony union. Sinus persisted at wound of entry, but eventually healed. Submental abscess also developed; this delayed complete immobilization (a cap splint being worn loosely for a time, so that the displacement was overcome), which was eventually practicable on Feb. 2. May 7, splint removed and jaw quite firm, with bony union. Patient discharged to duty June 15.

Case 3.—Fracture at the right angle of the mandible without comminution or loss of tissue. Patient wounded Oct. 17, 1916, and an intermaxillary splint was adjusted in France. Bullet entered left cheek, whilst the point of exit was immediately below lobule of right ear. On admission, Jan. 6, 1917, oral condition was bad and pronounced sepsis very apparent. Splint was removed and no union had resulted. Radiography shows the right mandibular third molar directly involved in line of fracture; it was consequently removed, together with several septic roots in the maxilla. A sinus existed beneath right ear and persisted for some time. The oral condition at length being satisfactory, an intermaxillary splint was adjusted, and on June 15 the patient was discharged to duty. Liimtation of opening had resulted, owing to involvement of masseter and internal pterygoid muscles as well as prolonged closure during the period of immobilization, but was rapidly overcome by intermittent gagging and massage.

Clase 4.—Complete fracture of condyle across its base. Wound received Oct. 12, 1916, and man admitted Nov. 14. Entry wound existed on left cheek, immediately above middle of zygomatic arch. The mandibular and maxillary teeth were wired together in France. On admission, the clinical condition was that of limitation in opening mouth, with salivary fistula in left cheek, which

was trated by introduction of a silver tube. No clinical evidence of mandibular fracture, and after the condition of "false trismus" had been overcome by massage and gagging, the patient was discharged to duty May 18, 1917.

Case 5.—Double fracture of right body of the mandible. Patient wounded by high-explosive shell, April 25, 1917, there being a large entry wound on right side of neck. An intermaxillary splint (metal Gunning) had been cemented in place, an excess of cement being present; a large piece of composition covered part of it, evidently to protect the tongue from injury. On admission May 18, mouth was found in a very septic condition; radiography shows an oblique fracture posterior to last molar tooth, in which a portion of tooth-root and mandibular molar tooth are involved, and a second fracture in right canine region, involving that tooth. A freely-discharging sinus was present at the entry wound. The splint was removed, and the above-mentioned teeth. June 5, the sepsis had subsided and sinus healed, so that an intermaxillary cap-and-bar splint was cemented in place. This was eventually removed to allow the extraction of second and third right maxillary molars, which were seen to preclude the forward movement of posterior fragment. A splint was again adjusted, and removed on Aug. 3, when it was found that fibrous union (pseudo-arthrosis) had resulted. A prosthetic appliance was provided which rendered mastication quite efficient, and the man was ultimately discharged to duty (C3). This case shows the evil effects of delay in removing involved teeth, of the presence of uncontrolled sepsis, and finally of neglect to allow the forward transition of the posterior fragment, all of which combined to produce non-union.

Case 6.—Wounded Sept. 25, 1916; admitted Nov. 3. Injury due to a bullet which, entering left angle of mouth, issued about 1 inch above the right angle. Radiography shows comminuted fracture of right angle of mandible, and a second fracture extending obliquely through the right body in the first mandibular molar region. Roots of two mandibular molars and the second premolar appear to be impacted in the fracture. A Hammond splint had been adjusted, and was removed, together with the molar and premolar roots and several maxillary teeth. Mouth in very septic condition. Nov. 15, an intermaxillary cap-splint was cemented in place, and when removed on Dec. 15 jaw was firm, and bony union obtained. This man was discharged to duty subsequently.

Case 7.—Incomplete fracture of left body of mandible, only the lower border of jaw being involved; there was no clinical evidence of fracture. Wounded July 30, 1917; admitted Aug. 13. Patient was discharged to duty on Sept. 10; the only treatment necessary was the removal of 7.5.4., which were quite loose.

In conclusion, we should like to thank Lieutenant-Colonel H. Littlewood, C.M.G., administrator of the hospital, and consulting surgeon to this department, whose valuable advice and courtesy have been of real assistance in our work.

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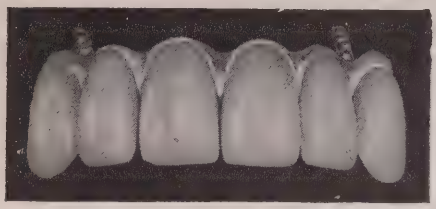

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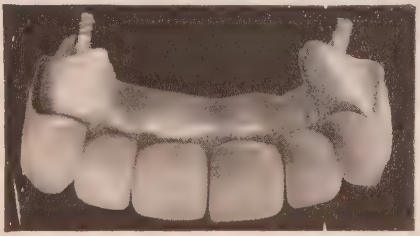

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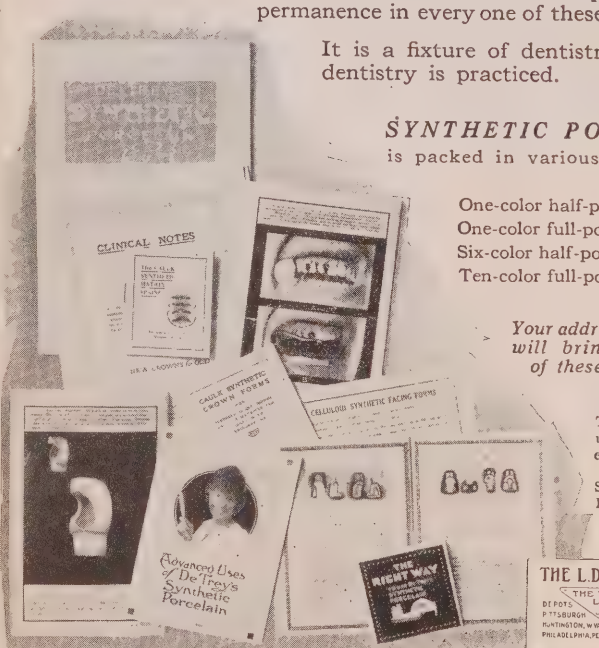

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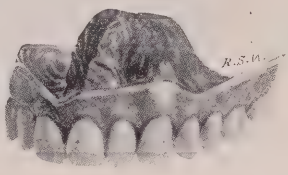

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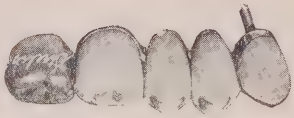

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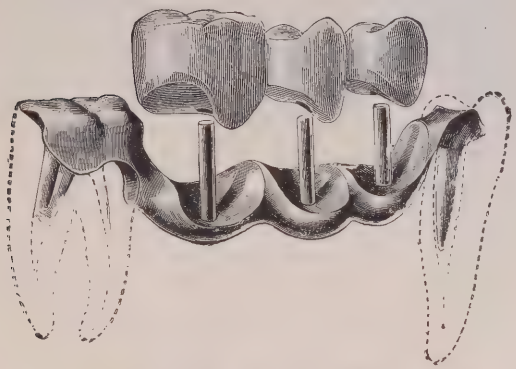

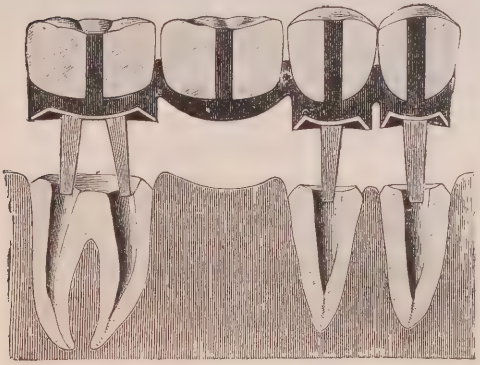

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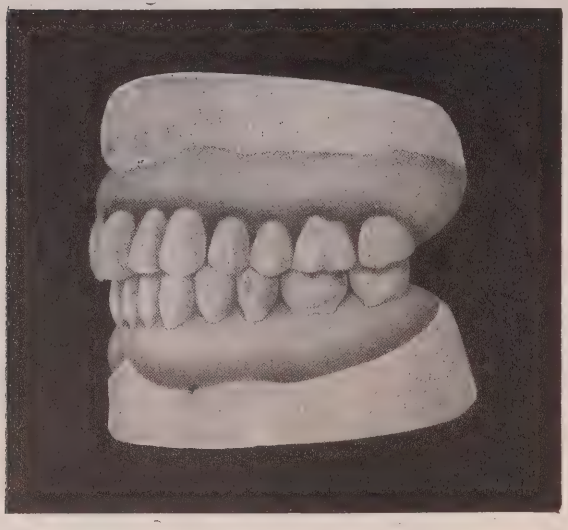

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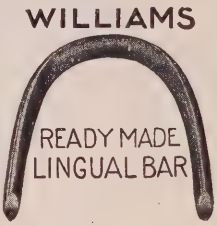

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IT softens at a low temperature, works easily, hardens quickly, adheres tenaciously to the walls of cavities, has no tendency to ball up, is not too sticky to be manipulated with ease and yields a beaufully smooth surface.

Supplied in Pink, White or Assorted

Per Package	-	$0.35
3 Packages	-	1.00

Claudius Ash, Sons & Co., Limited

..Ash's..
"Globe" Copper Amalgam

Was Introduced in 1894

There is no better Copper Amalgam on the Market at the Price

IT is an absolutely reliable and durable filling material, and is being used with great satisfaction by Dentists throughout the World.

It is recommended for its

Color, Hardness, Setting Properties and Edge Strength

In 1 oz. Packages, with directions for use

Per oz. - $1.25

Claudius Ash, Sons & Co., Limited

Ash's Dark Elastic Rubber

Purest and Strongest

TO obtain the best results with this product, bear in mind that it is all "Pure Para" and contains no coloring matter whatever. It is necessary therefore, in vulcanization to advance the heat very slowly and to vulcanize at least one and one-half hours.

The danger line in vulcanizing and dental rubber is 290 degrees F. above this point there is always a great risk of porosity in rubber which is over a quarter of an inch in thickness.

There is no risk of producing porosity in running up the temperature very quickly provided that it is not carried beyond the danger line of 290 degrees F.

Claudius Ash, Sons & Co., Limited

ASH'S DENTAL RUBBERS

They are *pre-eminent to-day*; are unapproachable for—

Purity, Strength,
Elasticity, &
Density.

Ash's Dental Rubbers are a Sure Practice Builder

We guarantee *full weight* in every box or envelope of Rubber of our manufacture, *exclusive* of the tracing cloth in which it is packed.

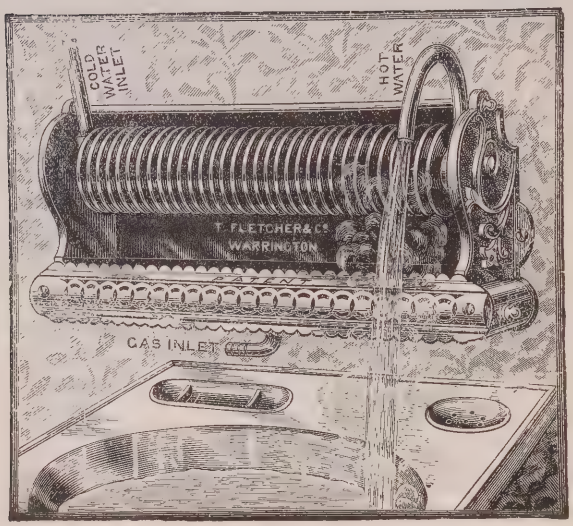
When ordering Dental Rubbers, be sure to ask for ASH'S

Chayes
Grinding Attachment

Owing to the necessity of conserving your Gold Scrap—this attachment will more than pay for itself.

Claudius Ash, Sons & Co., Limited

Instantaneous Water Heater



GIVES a steady stream of nearly boiling water. A $\frac{3}{8}$ inch clear bore gas supply is sufficient for the Heater.

Price N.P. - $17.50

Claudius Ash, Sons & Co., Limited

Ash's Best Quality Chip Syringe

THIS Syringe has been long and favorably known by the Dental Profession. The 2 oz. India Rubber Bulb with which it is furnished is the most durable that can be made.

Price	- -	$1.10
Extra Bulbs	-	.75

Ash's Dowel Crowns

in

Vulcanite Work

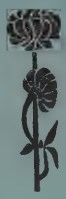
with

Baker Anchor Bar and Posts

Volume 8 Number 4

MARCH - 1919

Ash's Canadian Quarterly



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Claudius Ash, Sons & Co., Limited

CANADIAN BRANCH

11-13 Grenville Street, Toronto, Canada

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CONTENTS

MARCH, 1919

Advertising Section - - - - - Page 2

ORIGINAL MATTER—

Sketch of Lecture on X-Ray in Dentistry given by Dr. H. F. Kinsman before the 7th District Dental Association at Port Huron, Mich., February 5th, 1919 - Page 3

The Kaiser and his Dentist - - - Page 5

Advertising Section - - Page 12

Second Hand Goods - - - - - Page 14

Dental Practice for Sale - Page 14

Advertising Section - - - - - Page 15

To the Dental Profession

IT is with much pleasure that we are able to announce the arrival from England of a shipment of genuine...

Novocaine Tablets

The total output of this Drug was for the period of the war taken over by the British Government but has now been released for export.

Novocaine Dental Tablets "E"

Novocaine - 0.02 Gramme
Adrenalin - 0.00005 "

60c. per Tube.

Claudius Ash, Sons & Co., Limited

Ash's Canadian Quarterly Circular

Vol. VIII. TORONTO, MARCH 1, 1919 No. 4

Sketch of Lecture on X-Ray in Dentistry given by Dr. H. F. Kinsman before the 7th District Dental Association at Port Huron, Mich. February 5th, 1919

Gentlemen:

The time has now come when no dentist can afford to risk his reputation by disregarding the necessity of X-rays in dentistry, and if a machine is not accessible, steps should be taken to gain access to one or one should be bought. To buy one is a good investment, and it will pay for itself in about one year, and it will advertise your practice better than any newspaper advertisement could and do so ethically.

Reasons for Buying an X-Ray Machine.

(1) The radiomounts bear your name and are sure to be kept and shown to a patient's friends.

(2) The use of the X-ray gives the public confidence in your ability to find their trouble and to relieve it.

(3) You cannot expect the confidence of the medical practitioner if you do not use X-rays to disclose focal infections and impactions, for the day has come when the dentist is a medical specialist and the physician must have the intelligent co-operation of the dentist.

(4) You cannot protect yourself against accidents in practice without the use of X-rays.

Some of the Uses to Put X-Rays to.

(1) To locate impactions or lesions which are causing neuralgia.

(2) To locate focal infections responsible for neuritis and rheumatism.

(3) To show un-errupted teeth in children or the absence of the tooth germs; so as to warn you to keep space and thus prevent malocclusion by sending the patient to an intelligent arthodontist.

(4) To give intelligence before and verify operations for apicetomy.

(5) To give an intelligent idea of the difficulties to be overcome, and the angles to proceed at in nerve extirpation and root canal filling.

(6) To protect oneself against false accusation as regards fracture. If a patient states you broke his jaw come at him with an X-ray, and in nine cases out of ten his bluff is called.

(7) To give a pleasant diversion to the monotony of a purely technical practice.

(8) To ascertain the extent of alveolar support left in cases of advanced pyorrhea.

Hints in Reading X-Rays.

The study of the film must not be hurried or perfunctory. I believe it is possible to look at a single film many minutes and put it away and referring to it find something you entirely missed. The study of X-rays is only accomplished, I may say, by a Sherlock Holmes method in which some rules to be applied are:

(1) Notice the position of the filling in rayed teeth, and by so doing satisfy yourself as to which teeth are devitalized, either with or without canals filled (a live tooth is very seldom responsible for any trouble).

(2) Give all your attention to the thus segregated suspects. Look carefully for broken nerve broaches, Gates Glidden or Beutelrock Drills.

(3) Examine carefully by good light the apex of all roots with canals not filled to the apex.

(4) Look for the bulbous appearance and rarefied area indicating focal infections and granuloma.

(5) Look for improperly fitted crowns, and improperly trimmed margins of fillings and improper contact. Do not fear that the patient will hesitate to allow the use of X-rays or begrudge the cost. You will find them all as willing to submit to it as you

are anxious to employ it. The periodicals have long been educating the public to look for the source of many discomforts and diseases in their teeth, and there is no commodity which has so ready a market as personal comfort and freedom from the clutches of disease. Always be sure that external symptoms and conditions have been utilized to their fullest in diagnosis before the X-ray is called in and you will still find a surprisingly large number of cases requiring it, and you may take my word for it that if you put a machine in your office you will never decide to do without it again.

The Kaiser and his Dentist

By C. Edgar Thomas.

The number of books that owe their birth directly to the war is legion, and still they come, and that despite the much-deplored paper shortage! Some are good, some are bad, and the majority, it is to be feared, sadly indifferent and hopelessly ephemeral. To the long list of court memoirs, inner and secret histories, and personal revelations—many of them but mere back-stairs talk—there now is added, however, a profoundly interesting and authoritative book from the pen of Dr. Arthur N. Davis, Dentist to the Kaiser. It is a fairly intimate—so far as professional relations admit of intimacy—picture of the German Emperor and his family, as well as being a record of some fifteen years' residence in Berlin. Naturally its first claim to public attention is the author's first-hand information regarding the conditions prevailing in Germany during the past four years, but in a narrower degree it should appeal to the dental profession, for Dr. Davis has many interesting things to say regarding his work.

But it is not so much with conditions of dental practice in Berlin, either before or during the war—valuable as these matters would be—that the author chiefly concerns himself; rather does he devote himself to his relations with the German Imperial family, and the many highly-placed officials he numbered among his patients. As a result we are given some refreshingly naive pen pictures of great folks—in so far as Germans can be great—in the dental chair. His stories might well be termed dental-chair cameos!

"For fourteen years," says Dr. Davis, in his preface, "the Kaiser was my patient. All I know of him and all that he told me came to me while the relation of patient and dentist existed between us. For that reason I felt at first that, no matter how vital to the Allied cause might be the information I could give as to the Kaiser's view-point, ambitions, and plans, the requirements of professional ethics must seal my lips and compel me to withhold it from the world at large." However, the grave crisis the world was facing, and the fact that the story he had to tell might be of paramount importance to the Allied cause, caused Dr. Davis's patriotism to rise superior to the ordinary demands of professional etiquette.

Dr. Davis was in Berlin on April 6th, 1917, when war broke out between the United States and Germany; and when he left the country on January 22nd, 1918, he was the last American male to do so. When on the eve of departure, he endeavoured to dispose of his practice to Dr. Charles P. Houlden, an American dentist of Hamburg, all sorts of difficulties were put forward by the authorities, who would not allow Dr. Houlden to come to Berlin, as there were too many American dentists there already.

In his third chapter Dr. Davis tells the story of how he became Dentist to the "All Highest," and does not attempt to conceal the trepidation he experienced when meeting that august person for the first time. In September, 1903, he went to Berlin as associate to Dr. Alonzo H. Sylvester, an American dentist practising there, and who numbered the Kaiser among his patients. Five months later Dr. Davis operated on the German Emperor.

. . . We received word from the Kaiser's *Kammerdiener*, or body servant, over the telephone, that His Majesty would be at our place next morning at eight o'clock. This meant that we must cancel all other appointemnts for the greater part of that morning, as it was the invariable practice to clear the way, so to speak, for the Kaiser, that he might not encounter other patients when he called.

I do not believe I slept very soundly that night. I know that I was very nervous when, at about 7.30 a.m., three or four Secret Service police arrived at our place and stationed themselves outside the premises, to see that everything was safe for the Kaiser's arrival. . . . A great crowd of people was gathering in front of the house, waiting for the Kaiser, and they remained all the time the Kaiser was in the office, to greet him when he came out.

When he came into our office Sylvester received him. A few moments later word was sent out to me, and I went in to meet my royal patient. It was a rememberable experience, though destined to become a familiar one.

He was in full uniform and wore a sword. His bearing was very conscious of his rank, although he extended his hand and grasped mine so hard that he nearly crushed the bones: he was making an effort, I knew, to appear as democratic as possible.

The Kaiser clearly is a theatrical figure—this much Dr. Davis vouches for—and the probability is that, whatever fate may have in store for him, he will always remain a man of history—a gaudy tinsel figure, clad in shining armour, strutting and fretting his hour before the footlights of Europe, with the curtain finally descending upon irreparable tragedy. As to what sort of a figure the Kaiser cut in the dentist's chair is an interesting query that the author answers.

When he was seated in my chair I examined his teeth, and found them to be in rather a neglected condition. . . . I had to work steadily upon him for an hour and a half, and once or twice he referred to a wrist-watch, but he showed no particular impatience. . . . On this initial occasion I firmly believe I went through a far more severe ordeal than my patient. I recollect clearly how the mouth-mirror rattled against his teeth when I first inserted it in his mouth, because my hand was shaking so violently.

The Kaiser evidently stood pain well, and Dr. Davis remarks:

"The ladies like an anæsthetic, no doubt, Davis," he would say, "but I can stand it without. Go ahead!" And I may say at this point that in all my experience I never observed him to flinch while in the chair. He was the best patient in that respect I had ever treated. It often occurred to me, after the war started, that in all his callousness to pain lay the secret of his disregard for the pain and suffering he was responsible for in others.

Always careful about his health, the Kaiser, even after the war started, and his attention was occupied with many pressing problems, never neglected his teeth, but came to Dr. Davis as regularly as ever. Before the war, the author had suggested to the Kaiser that it would be a matter of mutual advantage for Germany to arrange with the United States for an exchange of medical and dental professors. The Kaiser warmly embraced the idea, and sent Dr. von Illberg, his private physician, to Dr. Davis to talk the project over. At the same time Dr. Davis was asked to make any recommendations that in his opinion would add to the efficiency of the Dental Institute at the University of Berlin. The war intervened and the project was shelved, Dr. Davis remarking, "What a power for good the Kaiser might have been in the world but for his accursed thirst for world dominion!"

Once the author was summoned by telephone to Potsdam to treat the Kaiser for toothache, and an interesting sidelight is given anent the food enjoyed by the Junkers while their less fortunate fellows were existing upon very short commons.

> There I found breakfast ready for me. It consisted of real coffee, real white bread, butter, marmalade, sugar, cream, and cold meats. It was the first food of the kind I had eaten for some time. . . . I disposed of every morsel of the meal, except one slice of bread, which led Schultz, the Kaiser's head body servant, who conversed with me while I breakfasted, to remark that I had better eat that too. "Even here," he suggested, "we don't get any too much of that." And I followed his advice.

The Kaiser was not at all in the best of moods, but he shook hands, and remarked: "In all my life, Davis, I have never suffered so much pain. Look here, Davis, you've got to do something for me. I can't fight the whole world, you know, and have a toothache!" An inflamed pulp was the cause of the trouble, which would have resulted in a swelling and an abscess unless promptly treated. No anæsthetic, either general or local, was used during the operation; and although Dr. Davis on various occasions suggested that much pain could be obviated by its use, the Kaiser always refused. The royal patient, despite all that he would have us believe to the contrary, was at least human on this occasion, for as soon as his pain had been relieved "his spirits seemed to revive appreciably." While mentioning this human point, it may be said that Dr. Davis has enjoyed what very few people have—seeing the Kaiser *en deshabille*. It was while at the Army Headquarters at the front that the Kaiser's teeth again gave him trouble, and Dr. Davis was sent for as a matter of course.

> The Kaiser entered the room attired in a red-flannel undershirt! Never before had I seen him in such a state of plebeian *negligée*. I had been so accustomed to seeing the Kaiser in uniform, both in pictures and in person, that I confess it had never occurred to me that underneath that symbol of power and pomp he probably dressed the same as mere mortals. I noticed, incidentally, that when the Kaiser put on his military coat *he put it on right over his red-flannel undershirt.*

Shortly after the U-boat *Deutschland* had made its successful trip to America, the Kaiser called for professional treatment on Dr. Davis, and as the royal visitor was in a particularly jocular frame of mind, the author mentioned that he had planned to go to America shortly in connection with a porcelain tooth that he

had patented. "Well, it won't be necessary now, Davis," replied the Kaiser: "we can send the *Deutschland* over and bring back a boat-load of teeth!" On another occasion he remarked: "Fix my teeth well, Davis, so that I can bite. There are lots of people I would like to bite"—Dr. Davis saying that he snapped his jaws together in a way that would have boded ill for the victim he had in mind. Again, the Kaiser's powers of observation are well demonstrated by this little story:

> Before the war he would talk to me incessantly during my work whenever its nature enabled him to do so, and yet when I was all through and had hammered the last piece of gold into his tooth—which I sometimes did instead of making a cast inlay—and announced, "Now, your Majesty, I am through." he would frequently remark: "Do you know, Davis, you hammered one hundred and thirty-five pieces of gold into that tooth. I counted them!"

In marked contrast to the Kaiser as a dental patient was Prince Joachim, his youngest son. As is known, he is the only one of all the Kaiser's sons to have been wounded, for which he received the Iron Cross of the First Class—"A first-class cross for a second-class wound!" as someone facetiously described the incident. "How the Russians ever got a chance to reach him, if he were even half as afraid of their bullets as he was of dental work, I cannot conceive," writes Dr. Davis. "All the time he was in my office he kept nervously twisting a front lock of hair."

The Crown Prince was another bad patient; he trembled all over, and evidenced the fact that he was dreadfully afraid of pain. Realizing that Dr. Davis had noticed this, he said: "I suppose the Crown Prince, and the future ruler of Germany, ought to be brave at all times, but I just hate to have to go to a dentist." While chatting to the Prince, Dr. Davis happened to mention that the Kaiser's Court Chamberlain, Count von Eulenburg, had come for treatment on the previous day. "I'm not surprised he has to go to the dentist," the Crown Prince remarked: "he eats too much. He can't expect to have good teeth. He's always eating. As for myself, I eat very little. I want to remain thin. I hate fat people." As a matter of fact, Dr. Davis writes, the Count happened to have the most wonderfully preserved teeth for a man of seventy years of age. Reverting to the Crown Prince, we are told that, apart from being a physical coward—frequently it was almost impossible to work upon him satisfactorily—he possessed no conception of the meaning of an appointment.

He would agree to be at my office at nine-thirty, and I would plan my day accordingly. At about ten he was apt to call me up to say he would be on hand at eleven, and he would actually arrive about twelve! This happened several times, and I told him that I could not have my work broken up in that way.

After one visit, the Princess von Pless informed Dr. Davis the Crown Prince had remarked to her: "I hope I'll never have to go to a dentist again as long as I live. I hate dentists!" Dr. Davis's own opinion is this:

So far as I was concerned, I was not at all sorry that he felt that way about my profession, because his visits were more of a liability than an asset.

The author's picture of the Kaiserin is that of a very dictatorial woman. On one occasion she strongly objected to removing her hat, and would only do so after being assured that treatment could not be satisfactorily carried out unless she did so. On another occasion she found fault with the cotton rolls that Dr. Davis placed in her mouth, and insisted that as she did not like the sensation of the cotton against her lips or tongue, they should be encased in rubber! When Prince Joachim called to see Dr. Davis, he humorously referred to the incident, saying, "I hear you don't think very much of the cotton rolls with rubber round them which the Empress invented, and which we have named the 'Imperial Cotton Roll.'"

The somewhat delicate subject of payment for services rendered to the German Imperial family, is briefly touched upon by the author. Shortly after becoming the Royal Dentist he was requested by the Household Doctor to render an account for his professional services, but, considering that his predecessor—Dr. Sylvester—had never submitted such a bill, he declined to do so, stating that he appreciated the honour of treating the Kaiser. The matter was pressed, however, and as there was really no reason why he should work for the Kaiser for nothing, Dr. Davis consented to submit his account. He says:

Indeed, apart from the prestige involved, working for the Kaiser was not a particularly remunerative proposition. It meant the demoralization of my routine for a portion of the day whenever he called, and, while that was not so serious in the early days, later on, when other members of the royal family came to me for treatment, and expected to be taken care of irrespective of such other appointments as I might have made, the situation was very provoking as well as comical.

Accordingly a moderate bill, comprising the regular fee for the treatment given to the Kaiser, was sent in. Within a few days payment was made, but the Kaiser had doubled the amount—"an act which was not at all in keeping with the stingy character the whole royal family was known to possess." Some years later, when Dr. Davis submitted his bill for professional services rendered to one of the Kaiser's sons, he received a postal order in payment, but the cost of such order was deducted!

The Kaiser's love of pomp and his appreciation of the value of advertisement of any description is a by-word. Dr. Davis amply demonstrates it by the following little incident:

Early in my association with him I happened to mention to the Kaiser that I appreciated the friendliness he showed me in invariably waving his hand at me as he passed my window when walking along the Tiergarten. "It's a good advertisement for you, Davis," he said. "The people see me waving to you, and they know that you must be a good dentist or I wouldn't come to you. It will help your business!"

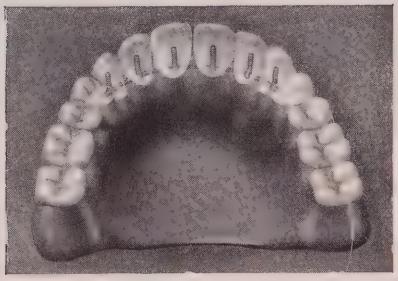
Ash's Dowel Crowns

in

Vulcanite Work

with

Baker Anchor Bar and Posts



1. The extra room which is gained in the mouth for the free action of the tongue, owing to the vulcanite not being carried so high up the teeth as is usual with pin teeth;
2. The clean and pleasant feeling which the patient experiences through the contact of the tongue with porcelain all round the arch;
3. The very natural appearance of the teeth owing to the lingual surfaces not being backed with vulcanite;
4. The pleasing shapes of the teeth and their delightful translucency:
5. The open cleansing spaces which they present, no matter how closely or irregularly the bases may be set together;
6. The way in which they lend themselves to that artistic irregularity of setting up which conceals artificiality. These are the strongest and densest teeth in existence.

Price

6 Dowel Crowns - -	$1.75
8 Diatoric Posterior -	
Anchor Bar with 6 Posts -	.75

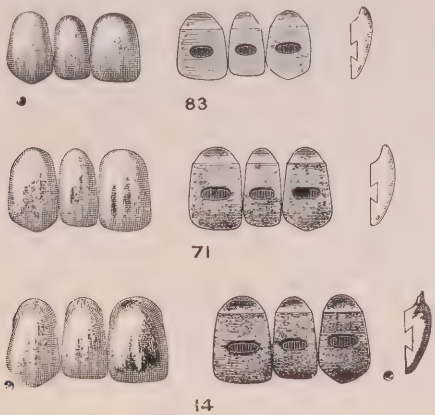
Claudius Ash, Sons & Co., Limited

Ash's Repair Facings

Made in the patterns shown in booklet which can be had on application, and supplied in sets of 6, sets of 4, pairs and odd.

The three sizes here illustrated are intended to show the distinctive feature to which we wish to draw attention, viz., the oval cavity in the back of each.

They can be used for repairing nearly every kind of denture; they are easily applied, exceedingly durable, and can be quickly fitted—it does not take longer than from 10 to 15 minutes to fit one.



They are invaluable for repairs to Bridges, and in all cases of Plate and Crown work in which a flat tooth has to be replaced.

The oval cavity at the back of each Facing corresponds with the positions of pins in our Flat Pin Teeth. The Facings do not require backing, but can be applied to the backings of fractured or broken teeth when the broken portions of mineral have been removed from the backings.

IMPORTANT NOTE.

For attaching these Repair Facings to teeth backings, etc., **we recomcend our C.A.S. Cement,**

Second Hand Goods For Sale

1 Harvard Chair, Mechanical Lift, Disk Base, Leather Upholstered in good condition - - $110.00

1 Harvard Chair, Oil Lift, Disk Base, Leather Upholstered in good condition - - - $135.00

1 Ritter Overhead Cable Engine, 110 V., 25 Cycle [Thoroughly overhauled] - - - - - $100.00

Dental Practice For Sale

Established Fifteen Years, lucrative practice, refined clientele, in Toronto. For particulars apply

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In the prevention and treatment of

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The Dentinol and Pyorrhocide Method

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Dentinol (liquid) applied by the dentist. Combines high germicidal efficiency with minimum toxity. Relieves soreness following instrumentation. Promotes rapid healing of diseased tissues.

Pyorrhocide Powder (Antiseptic — medicated with Dentinol, 3%.) An auxiliary treatment used by the patient. Aids in repairing Soft, Bleeding, Spongy, Receding gums. Cleans and Polishes the teeth.

Improved Dentinol Pyorrhea Scalers (set of 12) Angled to reach all crown and root surfaces, with positive rest on anterior teeth.

Improved Dentinol Prophylactic Files (set of 8) For final smoothing of root surfaces and continued prophylaxis.

Dentinol Perfect Syringe (Iridio platinum flat tip). Annealed lead glass—barrel and plunger ground to fit—no packing—easily sterilized.

Write for FREE copy of "Causes and Effects of PYORRHEA, Its Treatment and Prevention," and Instrument Circular.

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Gold Solders -- Gold
Shells -- Gold Wires
Clasping Disks.

National Gold Solder

...Strips...

Our Solders are noted for their uniformity of color and easy flowing qualities. They can be procured from all dealers.

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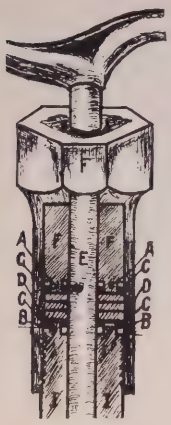

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Patented Feby 15th, 1919

Leak-Proof :: Boilable

Adopted by the U.S. Navy

Guaranteed leak-proof at both ends, if used in conjunction with Metsan **Metallic Needle and Plunger Washers.**

For Conductive or Local Anaesthesia.

No more oil-soaked washers to gather filth, dust and germs. No glass barrel to break. No costly repairs.

Boiling the Hypo improves the Washers.

Can be boiled for sterilization for hours without removal of, or injury to any of the washers.

Prices: $3.75 for Syringe, Wrench, one long and one short Chuck for Schimmel Needle, and extra Needle Washers and Plunger Packing. Metsan Needles, $1.50 per dozen, especially reinforced to prevent breaking off while injecting

How Long is a Root-Canal?

Metsan Root Canal Gauge

Patent applied for

The strength of a Pivot depends mainly upon the length of the Pivot-post.

This instrument will assure you the **absolute measurement of your Pivot-post in each and every case.**

No Guess Work! Takes but a second to manipulate! Will fit any Root Canal.

A Handy, Highly Finished Instrument.

Directions.

Loosen Set-screw. Insert Gauge-pin on to end of root slide holder close to face of root. Tighten set-screw. Withdraw instrument. Hold Pivot-post alongside of Gauge-pin which shows your given length.

Price - $2.75

Metallic Hypo-Washer Co.

212 East 62nd Street New York, N.Y.

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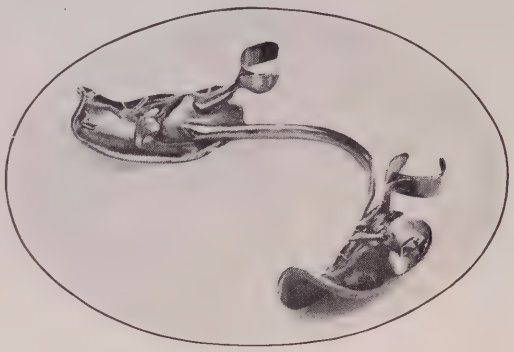

A Partial Denture

with gold saddles *swaged*, not cast, accurately adapted and kept well away from the teeth, and with rounded edges, makes a strong sanitary job that will give satisfactory service out of all proportion to the additional cost, whether retained by Roach Attachments, No. 2 or by clasps.

Best Material and Workmanship

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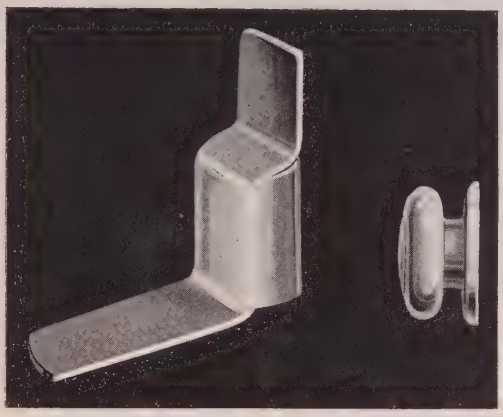
The New Roach Attachment



Illustrated Booklet Ready

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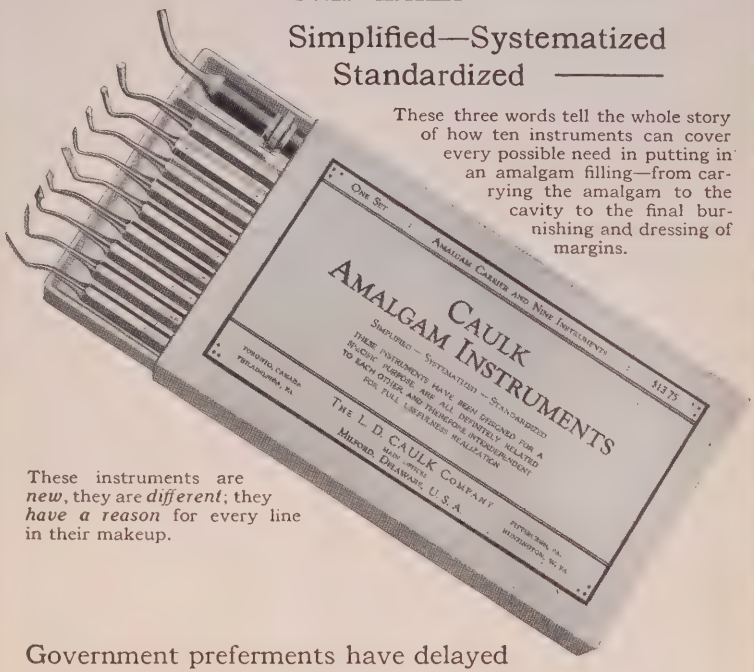

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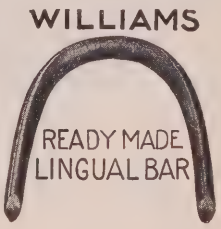

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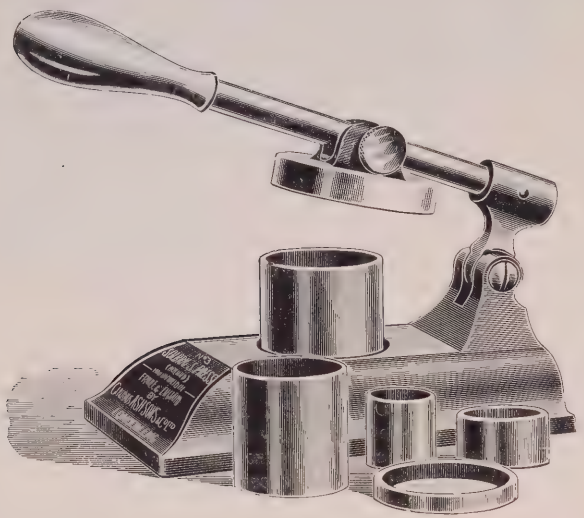

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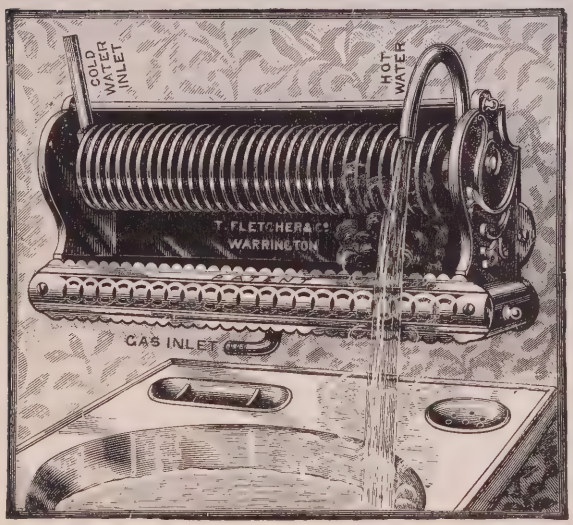

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Volume 9 Number 1

JUNE - 1919

Ash's Canadian Quarterly

Issued from Toronto, June, September, December, March

Claudius Ash, Sons & Co., Limited

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CONTENTS

JUNE, 1919

Advertising Section - - - - - Page 2

ORIGINAL MATTER—

President's Address - - - - Page 3

Report of O.D.S. Annual Convention Page 4

Report of Oral Hygiene Committee O.D.S. Page 6

Resume of Dr. Percy Howe's Paper - Page 8

Those who attended the O.D.S. Meeting Page 10

O.D.S. to Seek Incorporation - - Page 12

Report of Advisory Committee in Cases of Alleged Malpractice - - - Page 13

Financial Statement—Oral Hygiene Committee, Ontario Dental Society - Page 14

Advertising Section - - - - - Page 14

Second Hand Goods - - - - - Page 15

Advertising Section - - - - - Page 16

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Ash's Canadian Quarterly Circular

Vol. IX. TORONTO, JUNE 1, 1919 No. 1

President's Address

J. E. Rhind, D.D.S., Toronto

To the Members of the Ontario Dental Society:

The last three Ontario Dental Conventions were held with the shadow of a great war resting darkly over us. How grateful we should be that our armies and those of our allies have triumphed, and let us hope that the peace treaty soon to be signed will prevent forever the recurrence of such a terrible catastrophe. The members of the dental profession serving in the Canadian Army Dental Corps did much to fit men for active service, and will now be called upon to help make them fit to resume their duties as citizens in peace times. Through their services the importance of oral health has been impressed upon thousands of young men in such a practical way that it will never be forgotten.

The Convention of 1918 decided that the Constitution and By-laws of this Society should be revised and brought up-to-date. The committee appointed then have spent much time and thought upon the matter, and will present a report for your consideration.

The Constitution and By-laws of the Canadian Dental Association have been re-drafted within the past year. Provision has been made for representation from this Society on the Executive Council of that organization, and I hope that advantage of that privilege will be taken by electing certain members to represent the Ontario Dental Society.

For some time past negotiations have been going on, tending towards the taking over by the University of Toronto of the teaching of dentistry as one of the University faculties. It appears that this would have many advantages if it could be arranged on a

satisfactory basis. It would be well for the members of the profession to give this subject their serious thought, discuss it with their representative on the board, read the minutes of the board which are sent to them each year, and so be prepared to deal intelligently with this important matter at the proper time.

The subject of trained help for the dentist is one that might be considered and suggestions offered by this Society. In conversation with Dean Webster I have learned that the college has under consideration "An Assistant's Course" which would provide training in secretarial work, record-keeping, sterilizing, etc. This should meet one particular need at least. But what of the "Woman Dental Hygienist," who has been recognized by statute in a number of the States in the neighboring republic? Her sphere of work is pretty much limited to prophylaxis under a dentist's supervision, and the instruction of mothers and children as to the importance of a healthy mouth. Is the dentist shirking his responsibility in handing over these important duties to a non-graduate, and will it not be difficult to restrict the sort of operations which may be performed. Many good ideas have come to us from the United States, but I think we should be slow to adopt this one.

The Department of Education of the Province of Ontario has decided to appoint a dental inspector. His duties at first will largely consist in arousing an interest in dental inspection throughout the Province and in helping to organize local clinics. This is the most progressive step in dental legislation which has ever been made in this Province, and the report of the Oral Hygiene Committee will deal more fully with it.

Report of O.D.S. Annual Convention

The fifty-second annual meeting of the Ontario Dental Society was held at the Central Y.M.C.A. Building, Toronto, April 28th-May 1st, 1919. The convention this year took the form of progressive clinics, with the single exception of an excellent paper by Dr. Percy Howe, of Boston, which was presented upon the afternoon of the first day.

The progressive clinics were an unqualified success, and were given by the Detroit Clinic Club, the Hamilton Clinic Club, and two progressive clinics given by members of the graduating class

of the Royal College of Dental Surgeons. One of the latter, illustrating Root Canal Technique, was organized by Dr. A. E. Webster, and the other, showing Crowns and Steps in Technique, was organized by Dr. I. H. Ante. The clinician-students, the graduates, and those in charge of the clinics, are to be congratulated upon the splendid demonstrations that were given. The Detroit Club clinic was a great success, and covered prosthodontia, including impressions, study models, individual impression trays, test impression (both upper and lower), working models, bite, selection of teeth and their arrangement, flasking, packing, carving and finishing. The Hamilton Club clinic was also a great success, and took up prosthodontia work, illustrating particularly the Hall method of denture making.

Dr. W. B. Amy was supervisor of clinics, and is to be congratulated upon the arrangements and administration of the clinic programme. Dr. McKim, chairman of the programme committee, the president, secretary and other officers, have every reason to be proud of the very practical and satisfactory results of the convention this year. Dr. J. A. Bothwell proved himself indefatigable in the interests of the convention.

The clinicians were as follows:

Detroit Clinic Club.—Doctors Wm. A. Giffen, F. W. Holt, V. B. Rea, Wm. Matheson, Lloyd Rogers, Chas. Lane, P. C. Lowery, Elmer L. Whitman, W. H. Waller and A. Deyoe.

Dr. Giffen read a short paper drawing particular attention to certain phases of prosthodontia work.

Hamilton Clinic Club.—Doctors J. E. Johnston, J. A. Locheed, S. Clappison, H. M. Morrow, F. P. Moore, F. J. Furlong, H. A. Robertson, F. L. Williamson, J. N. Stewart, D. J. Weadick and D. T. Main.

Dr. Hall read a short paper and gave a clinic on the Articulator, and also showed cases from practice.

Operative Clinic.—In charge of Doctors A. E. Webster and Frank Price.

Student-Clinicians.—Messrs. Richardson, Hugill, Godwin, Sawyer, Johnson, Taylor, Brownlee, Ross, Giffin, Lapp and Clairmont.

Crown and Bridge Clinic.—In charge of Dr. I. H. Ante.

Student-Clinicians.—Messrs. G. L. Shannon, H. W. Hogg, G. V. Gardiner, R. I. Hotham, M. C. G. Bebbee, M. H. Blandin, S. A. Moore and A. Couture.

Two luncheons were held during the convention, and these were addressed by Rev. A. Logan Geggie and Sir John A. Willison.

The exhibits were an important feature of the convention, and attracted widespread interest among the members.

Report of Oral Hygiene Committee O.D.S.

At the last annual meeting of the Ontario Dental Society the following were elected on the executive of the Oral Hygiene Committee: Doctors H. E. Eaton, J. A. Bothwell, F. C. Husband, J. J. Conboy, N. S. Coyne and A. W. Ellis. These, together with the past chairmen, Wallace Seccombe, C. W. Trotter, R. G. McLaughlin, and R. J. Reade and the chairman of the sub-committees, form the executive of the Ontario Oral Hygiene Committee. The committee at its first meeting elected the following officers for the year 1918-19: Dr. R. J. Reade, chairman; Dr. H. E. Eaton, vice-chairman; Dr. N. S. Coyne, secretary; Dr. A. W. Ellis, treasurer.

During the year just past the work carried on by your committee has been varied. As in the past, the sub-committees were asked to address the teachers at the fall conventions held throughout the Province. When the local dentist, for reasons which seemed sufficient to himself, did not care to appear on the programme of the conventions, your executive supplied lecturers as far as possible. This is a work of much importance, and prepares the school teachers for the reforms and advances that are to be made regarding the means of supervising the health of the school population.

Your president asked the chairman of the Oral Hygiene Committee to attend a meeting of the Preparedness League of Dentists in Buffalo, and to report to him what was the outline of the work to be pursued by the league. The occasion of the request was that Dr. J. W. Beach, the president, on a visit to Toronto, desired a joint meeting of the dentists of Canada and

the dentists of the league, to ascertain if there was a possibility of co-operation in our efforts for the uplift of humanity. The Preparedness League was a war measure. The war having ceased, the executive of the league were loath to allow the splendid machinery which they had constructed to fall into disuse. The impression of the meeting was that if any attempt at co-operation was to result, it would be necessary for the league through the National Dental Association to approach the Canadian Dental Association.

During the year your committee appointed a sub-committee to work with the military dental clinic here. Plans were drawn for a military dental hospital. The victory of the Allies, and the signing of the armistice, was the signal for a halt in all such work.

The question of a dental clinic at the Gravenhurst Hospital was taken up and worked out pretty thoroughly. Equipment was already being installed, and the management had operators in view.

Mr. Putman, of the Agricultural Department of the Provincial Government, asked for the co-operation of the committee to make an investigation of the school children of Streetsville, and put on a clinic for two days. The committee complied with the request and Dr. Bothwell kindly took charge of this work.

The fact of the Women's Institutes taking up this work is significant.

Your committee had learned that if any progress was to be made in introducing dental inspection as a Government measure it would be necessary to supply the different members of the House with the facts relating to the condition of the teeth of the children of the Province. With this end in view, a letter and a leaflet was prepared and sent to every member of the Ontario Government.

During the year your committee has had several interviews with the Hon. Dr. Cody, Minister of Education, with a view to introducing dental inspection and dental clinics in the schools of the Province. Dr. Cody seems to grasp the situation and is sympathetic with the effort. Very gratifying progress has been made in the matter of provincial dental inspection. The matter has gone so far that we hope that a dental inspector will be

appointed within a few weeks. In fact, if this convention had been held just a little later, we would have been able to give you the name of the inspector.

These are some of the results of the efforts of your committee during the past year. But the results are not of this year's work alone. The end attained has been achieved by the constant effort of your executive and sub-committees, during the past nine years your Oral Hygiene Committee has been in existence.

Early in the season your committee mailed to every dentist in the Province a circular letter, giving a series of suggestions on the best method of placing forcibly before the local authorities the necessity of having a system of dental inspection introduced into the schools of any particular city, town or locality. This circular was especially intended to be of assistance to any local committee or individual dentist who was endeavoring to work out the problem of dental inspection in his own town. We believe the propaganda outlined in this circular proved of practical value to many in the profession.

All of which, together with the subjoined treasurer's report, is respectfully submitted.

N. S. Coyne, Secretary.

Robert J. Reade, Chairman.

Resume of Dr. Percy Howe's Paper

A. D. A. Mason, D.D.S., Toronto

Dr. Howe's paper, presented to the Ontario Dental Society, was most instructive, and the fact that the essayist's statements were so emphatic, and that he was quite positive in his conclusions, made his paper very refreshing.

Speaking of dental pulp; from clinical observation it is a known fact that the dental pulp has restorative properties, shown in the fact that fractures in children's teeth have thrown out calcific salts and restored the union between the two fragments

of the tooth. Owing to the fact that the pulp possesses this restorative property, Dr. Howe is emphatic in his conclusion that the dental pulp should be saved, even to the extent of capping fairly large exposures.

The method of capping proposed by Dr. Howe is to use oxide of zinc and eugenol for the layer immediately over the pulp, this to be followed by a deposit of silver from the Howe method of using silver nitrate.

In cases of putrescent pulp, the method of treatment advocated by Dr. Howe was as follows: Prepare a solution of silver nitrate—3 drams of silver nitrate to 1 c.c. of water. To this solution add 2½ c.c. of strong ammonia, and filter the solution to get rid of the precipitate. Then place in a dark colored bottle, away from the sunlight. This is known as Solution A. Solution B is a 25 per cent. solution of formalin. Treatment: To the putrescent canal add Solution A, leaving it for about three minutes; then follow with Solution B, which is also left for about three minutes. Now wipe the solution out of the canal, and repeat this method until the canal has been thoroughly sterilized. The canal can then be filled by any method the operator desires, but Dr. Howe does not believe that any other root canal filling is essential.

In the case of Solution A one must be careful not to pump the solution through the end of the apical foramen, as such treatment is very irritating to the vital tissue. Capillary attraction is all that is necessary to get this solution to reach the end of the root, and the solution will enter all tubuli in which there is any infection. It will not enter tubuli in which there is vital tissue, owing to the coagulating properties of the silver nitrate.

The great objection to this method of root canal treatment is the discoloration of the tooth tissue. To protect the crown of the tooth from discoloration, Dr. Howe recommends the use of wax, or a rosin solution.

The Howe method is recommended only for treatment of the root canal, not for the tissue beyond the root canal. For tissue beyond the root canal Dakin's Solution or Churchill's Tincture of Iodine are recommended.

A solution of iodide of potassium is the agent used to remove any stains caused by the silver ntirate.

Those who attended the O.D.S. Meeting

The following is a list of those in attendance at the convention:

Dr. Abbott, C. N., London.
Dr. Adams, J. F., Toronto.
Dr. Allen, A. H., Peterboro.
Dr. Allen, G. P., Mount Forest.
Dr. Amos, J. E., Brantford.
Dr. Amy, W. B. T., Toronto.
Dr. Anderson, H. W., Toronto.
Dr. Anderson, J. L., Oakville.
Dr. Ante, I. H., Toronto.
Dr. Armstrong, H. H., Toronto.
Dr. Armstrong, J. W., Toronto.
Dr. Armstrong, M. T., Parry Sound.
Dr. Armstrong, W. A., Ottawa.
Dr. Arnold, E. F., Toronto.
Dr. Arnott, H. C., Toronto.
Dr. Ault, J. W., Prescott.

Dr. Bald, G. W., Sault Ste. Marie.
Dr. Ball, E. S., Toronto.
Dr. Ball, W. H. W., Toronto.
Dr. Barron, F., Paris.
Dr. Barbour, (Capt.) F. W. Base Hospital, MD. No. 2.
Dr. Bansley, J. C., Toronto.
Dr. Barker, E. S., Stouffville.
Dr. Beaton, D. H., Toronto.
Dr. Beatty, J. A., Stratford.
Dr. Belden, G. F., Toronto.
Dr. Berry, R. N., Caledonia.
Dr. Billings, M. R., Cayuga.
Dr. Black, D. A., Toronto.
Dr. Black, W. A., Toronto.
Dr. Bagshaw, D. J., Toronto.
Dr. Bothwell, J. A., Toronto.
Dr. Bothwell, J. A., Stratford.
Dr. Bracken, D. M., Grand Valley.
Dr. Bradley, S. W., Ottawa.
Dr Brooks, C. E., Toronto.
Dr. Broughton, A. J., Toronto.
Dr. Brown, A. J., Mitchell.
Dr. Brown, J. J., Woodstock.
Dr. Brownlee, W. A., Grimsby.
Dr. Bruce, E. E, Kincardine.
Dr. Burnett, A. C., Hamilton.
Dr. Burnet, W., Galt.
Dr. Butler, T. E. C., Toronto.

Dr. Campbell, G. H., Orangeville.
Dr. Cameron, (Maj.) G. L., Toronto.
Dr. Campbell, E. T., Toronto.
Dr. Campbell, L. G., Markdale.
Dr. Campbell, P. W., Toronto.
Dr. Campbell, T. F., Galt.
Dr. Campbell, A. G., Wallaceburg.
Dr. Capon, F. J., Toronto.
Dr. Chalmers, W. L., Toronto.
Dr Chambers, J. S., Toronto.
Dr. Chambers, R. M., Leamington.
Dr. Chapin, C. G., Toronto.
Dr. Cheney, H. L., Alexanudria.
Dr. Clappison, O. S., Hamilton.
Dr. Clark, H., Toronto.
Dr. Clarke, M. J, Belleville
Dr Clarkson, C. H., Toronto.
Dr. Coupland, P. T., St. Marys.
Dr. Collard, C. R., Toronto.
Dr. Cosgrove, R. H., Ottawa.
Dr. Conboy, F. J., Toronto.
Dr. Coon, W. H., Toronto.
Dr. Cowan, W. A., Toronto.
Dr. Craig, J. J., Peterboro.
Dr. Crane, H. O. C., Toronto
Dr. Crawford, J. C., Haileybury.
Dr. Crocker, H. D., Tillsonburg.
Dr. Crozier, A. L., Sault Ste. Marie.
Dr. Crippen, D., Toronto.
Dr. Cunningham, H., Toronto
Dr. Currie, T. A., Toronto.

Dr. Dalrymple, W. A., Toronto.
Dr. Davidson, D., Woodstock.
Dr. Day, M. A., Belleville.
Dr. Day, P. L., Harrowsmith.
Dr. Dayment, F. L., Toronto
Dr. Dawson, T. W., Toronto.
Dr. Day, A., Toronto.
Dr. Devitt, J. C., Bowmanville.
Dr. Dickson, R. O., Toronto.
Dr. Dolson, E. A., Toronto.
Dr. Doering, L., Mildmay.
Dr. Douglas, N. K., Owen Sound.
Dr. Drummond, J. A., Petrolea.
Dr. Duff, J. H., Toronto.

Dr. Eaton, H. E., Toronto.
Dr. Eckel, S., Waterloo.
Dr Edwards, A. J., Toronto.
Dr. Ellis, A. W., Toronto.
Dr. Emmett, G., Toronto.
Dr. Everett, G. W., Toronto.

Dr. Falconer, E. W., Sarnia.
Dr. Fallis, C. O., Toronto.
Dr. Fear, W. J., Aylmer.
Dr. Fisher, R. E., Toronto.
Dr. Fleming, J. A., Prescott.
Dr. Fleming, W. A., Alliston.
Dr. Floyd, S. T., Toronto.
Dr. Follick, L. L., St. Marys.
Dr. Frain, J. H., Norwich.
Dr. Fraser, G., Madoc.
Dr. Frawley, S. L., Toronto.

Dr. French, H. G., Dresden.
Dr. Fuller, E. W., London.
Dr. Fuller, W. J., New Liskeard.
Dr. Fulton, E. M., Hamilton.
Dr. Furlong, F. J., Hamilton.

Dr. Griffen, Wm. A., Detroit.
Dr. Gausby, E. L., Toronto.
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Dr. Gow, G., Toronto.
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Dr. Gray, J. W., Hamilton.

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Dr. Hall, R. E., Chicago.
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Dr. Hamilton, R. S., Brussels.
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Dr. Johnston, J. E., Hamilton.
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Dr. Thomas, S. M., London.
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Dr. Terry, C. A., Queensville.
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Dr. Veitch, E. C., Toronto.

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Dr. Walker, H. B., Toronto.
Dr. Walker, W. L., Toronto.
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Dr. Walsh, J. L., Kingston.
Dr. Walt, C. F., Kingston.
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Dr. Wilson, S. C., Perth.
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Dr. Woods, W. J., Toronto.
Dr. Wray, W. E., Toronto.
Dr. Wright, F. J., Toronto.
Dr. Wylie, T. H, Toronto.

Dr. Zeigler, O. H., Toronto.

O.D.S. to Seek Incorporation

It was decided at the annual meeting of the Ontario Dental Society that the Society seek incorporation. Officers and committees were elected as follows:

Honorary President—Dr. J. E. Rhind, Toronto.

President—Dr. Jos. A. Bothwell, Stratford.

Vice-President—Dr. J. A. Fleming, Prescott.

Secretary-Treasurer—Dr. John A. Bothwell, Toronto.

Archivist—Dr. C. A. Kennedy.

BOARD OF GOVERNORS (PROGRAMME COMMITTEE)

For one year—Drs. MacLachlan and Gausby.

For two years—Drs. Brooks and McKim.

For three years—Drs. Conboy and Plaxton.

ADVISORY COMMITTEE

Dr. R. G. McLaughlin
Dr. Wallace Seccombe
Dr. A. D. A. Mason
Dr. Harold Clark
Dr. T. H. Wylie

ORAL HYGIENE COMMITTEE

Dr. A. Ellis
Dr. F. C. Husband
Dr. F. J. Conboy
Dr. H. E. Saton
Dr. J. P. MacLachlan

Report of Advisory Committee in Cases of Alleged Malpractice

This committee of the O.D.S. is composed of Doctors F. J. Conboy, A. E. Webster, Wallace Seccombe, A. D. A. Mason and R. G. McLaughlin.

The committee has now been in existence for two years, and is acting in an advisory capacity to those of the dental profession who are threatened with legal proceedings because of alleged malpractice, and who seek its advice. During this term the committee has been able to render assistance in a number of important cases, and through its advice and the guidance of legal counsel is glad to report that all cases so far coming before it have, it is believed, been brought to a just conclusion.

As all such cases are treated confidentially by the committee, a list cannot properly be placed before the Society. However, from the two years' experience, the members feel that there is a real need in the profession for the services of such a committee.

Respectfully submitted.

R. G. McLAUGHLIN, Chairman.

Financial Statement—Oral Hygiene Committee, Ontario Dental Society

April 1st, 1918, to May 1st, 1919

RECEIPTS

Balance	$ 53.82
Grant, Ontario Dental Society	300.00
Bank interest	.52
	$354.34

DISBURSEMENTS

Printing, postage, reports, circulars, etc.	$182.61
Lecturers' expenses to Teachers' Conventions	41.15
Committee expenses	37.20
Total	$260.96
Balance	93.38
	$354.34

ARTHUR W. ELLIS, Treasurer.

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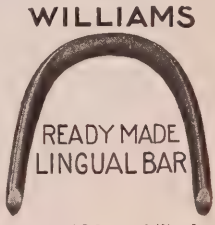

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1 Harvard Chair, Mechanical Lift, Disk Base, Leather Upholstered in good condition - - $100.00

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1 Electro Dental Folding Bracket Engine. Alternating Current Price - - - - - - $125.00

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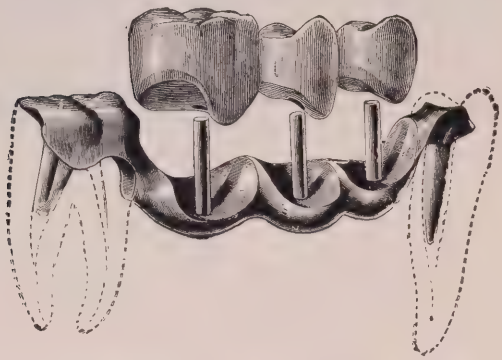
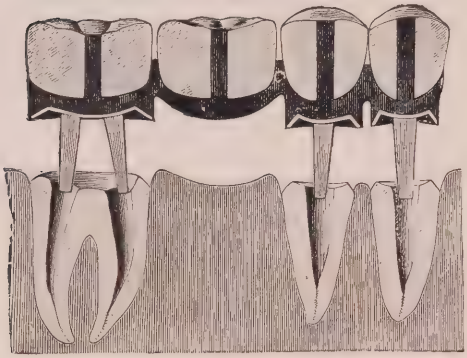
The Strongest and simplest Tooth for Bridge Work





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Per Hundred, $22.50

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The Dentinol and Pyorrhocide Method

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Dentinol (liquid) applied by the dentist. Combines high germicidal efficiency with minimum toxity. Relieves soreness following instrumentation. Promotes rapid healing of diseased tissues.

Pyorrhocide Powder (Antiseptic — medicated with Dentinol, 3%.) An auxiliary treatment used by the patient. Aids in repairing Soft, Bleeding, Spongy, Receding gums. Cleans and Polishes the teeth.

Improved Dentinol Pyorrhea Scalers (set of 12) Angled to reach all crown and root surfaces, with positive rest on anterior teeth.

Improved Dentinol Prophylactic Files (set of 8) For final smoothing of root surfaces and continued prophylaxis.

Dentinol Perfect Syringe (Iridio platinum flat tip). Annealed lead glass—barrel and plunger ground to fit—no packing—easily sterilized.

Write for FREE copy of "Causes and Effects of PYORRHEA, Its Treatment and Prevention," and Instrument Circular.

The Dentinol & Pyhorrhocide Co.
INCORPORATED
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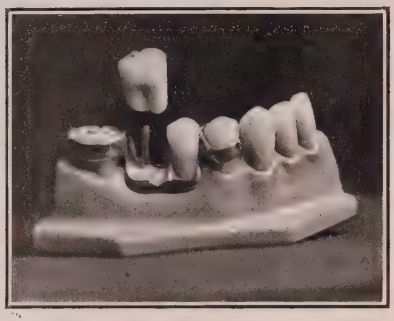

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We make a speciality of Roach Attachments. ¶ The latest technique in Plate work. ¶ The best material on the market, made up into works of beauty and utility according to principles that are mechanically and artistically correct.

"Quality First" assured

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Phone 5751

IF CONDITIONS do not warrant the use of Trubyte Teeth, why not instruct your laboratory to use

Twentieth Century

Ready

There is a new booklet just off the press that we know will interest you.

It describes the new (No. 2) form of the Roach Attachment and goes into the technique in detail.

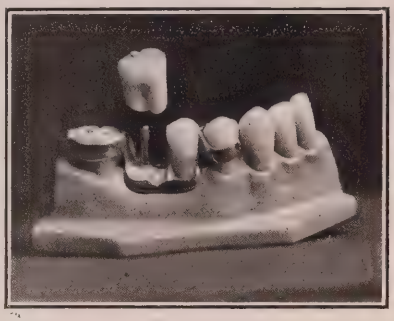
Clearly written and profusely illustrated in two colors, it is a bit of literature that you should have if you are at all interested in the subject of removable bridges.

It's yours, doctor, for a postal-card.

Consolidated Dental Mfg. Co.

137 Washington Place, New York

Efficient Sanitary Esthetic



1. The e... the tongue, the teeth as is ...

Removable Bridge

2. The clean and pleasa... *be Teeth* retained by *Cast* the contact of the tong... ...thout vulcanite. ...s through ...he arch;
3. The very natural appearance of the teeth owing to the lingual surfaces not being backed with vulcanite;
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Price

6 Dowel Crowns - -	$1.70
8 Diatoric Posterior -	
Anchor Bar with 6 Posts -	.75

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Twentieth Century Teeth

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Baked-in-pin-teeth are inferior and should be refused.

THE DENTISTS' SUPPLY COMPANY OF NEW YORK
SOLE MANUFACTURERS OF TRUBYTE TEETH
220 WEST 42ND ST. NEW YORK

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DE TREY'S SYNTHETIC PORCELAIN

has worked its way into the confidence of dentists to such an extent that it has become a *fixture in dentistry*. It has a distinct and definite place in every modern practice.

For this reason you will find a

SYNTHETIC CABINET

a part of every office equipment.

THE CABINET contains everything necessary for a Synthetic operation. It keeps these accessories assembled, uncontaminated, ready at all times. It is an automatic stock keeper. It impresses on your patient the value of the filling by your care of the material and your method of handling it. It is also the most economical way of buying "Synthetic" and its accessories; *the Cabinet itself goes to you with our compliments.*

It is not merely a convenience; it is a practical necessity.

GOLDEN OAK
PEARL GRAY
WHITE ENAMEL
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Two Sizes
$30.00
$47.00

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AMALGAM INSTRUMENTS

Simplified—Systematized
Standardized

These three words tell the whole story of how ten instruments can cover every possible need in putting in an amalgam filling—from carrying the amalgam to the cavity to the final burnishing and dressing of margins.

These instruments are *new*, they are *different*, they *have a reason* for every line in their makeup.

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The set complete, $15

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A pamphlet has been prepared which describes them fully.

No More Porous Dentures!

ASH'S DENTAL RUBBERS

Latest Vulcanizing Directions

For Ordinary Dentures—A sheet of Rubber such as is used for an Ordinary base-plate may be vulcanized at a high temperature in a short time—that is, at 315° F. (157° C.) for 75 minutes.

For Thick and Extra Thick Dentures—Rubber which is $\frac{1}{4}$ inch in thickness should be vulcanized at a temperature of 300° F. (149° C.) for 2 hours.
A mass of Rubber which is $\frac{1}{2}$ inch thick should be vulcanized at a temperature of 290° F. 143° C.) for $2\frac{1}{4}$ hours.
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Notes—The danger line in vulcanizing any Dental Rubber is 290° F. (143° C.). Above this point there is always a great risk of porosity in Rubber which is over $\frac{1}{4}$ inch in thickness.
There is no risk of producing porosity in running up the temperature very quickly, provided that it is not carried beyond the danger line of 290° F. (143° C.).

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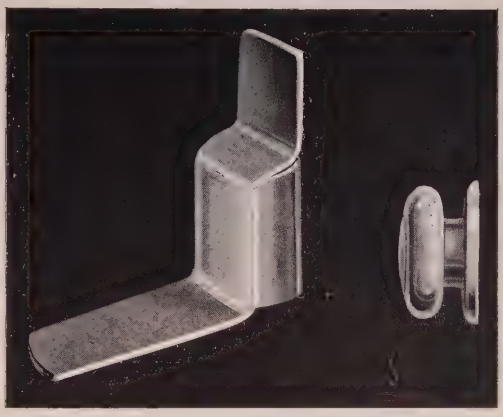

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"Globe" Copper Amalgam

Was Introduced in 1894

There is no better Copper Amalgam on the Market at the Price

IT is an absolutely reliable and durable filling material, and is being used with great satisfaction by Dentists throughout the World.

It is recommended for its

Color, Hardness, Setting Properties and Edge Strength

In 1 oz. Packages, with directions for use

Per oz. - $1.25

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IT softens at a low temperature, works easily, hardens quickly, adheres tenaciously to the walls of cavities, has no tendency to ball up, is not too sticky to be manipulated with ease and yields a beaufully smooth surface.

Supplied in Pink, White or Assorted

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Made in the patterns shown in booklet which can be had on application, and supplied in sets of 6, sets of 4, pairs and odd.

The three sizes here illustrated are intended to show the distinctive feature to which we wish to draw attention, viz., the oval cavity in the back of each.

They can be used for repairing nearly every kind of denture; they are easily applied, exceedingly durable, and can be quickly fitted—it does not take longer than from 10 to 15 minutes to fit one.

83

71

14

They are invaluable for repairs to Bridges, and in all cases of Plate and Crown work in which a flat tooth has to be replaced.

The oval cavity at the back of each Facing corresponds with the positions of pins in our Flat Pin Teeth. The Facings do not require backing, but can be applied to the backings of fractured or broken teeth when the broken portions of mineral have been removed from the backings.

IMPORTANT NOTE.

For attaching these Repair Facings to teeth backings, etc., **we recommend our C.A.S. Cement,**

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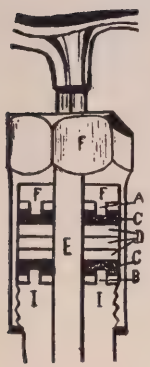
Patented Feby. 11th, 1919

Leak-Proof :: Boilable

Adopted by the U.S. Navy



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For Conductive or Local Anaesthesia.

No more oil-soaked washers to gather filth, dust and germs. No glass barrel to break. No costly repairs.

Boiling the Hypo improves the Washers

Can be boiled for sterilization for hours without removal of, or injury to any of the washers.

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For Syringe, Wrench, one long and one short Chuck for Schimmel Needle, and extra Needle Washers and Plunger Packing.

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Metsan Sanitary Plunger Packings, 30c. per pkg.

Which also will fit any other style Hypo with threaded hub

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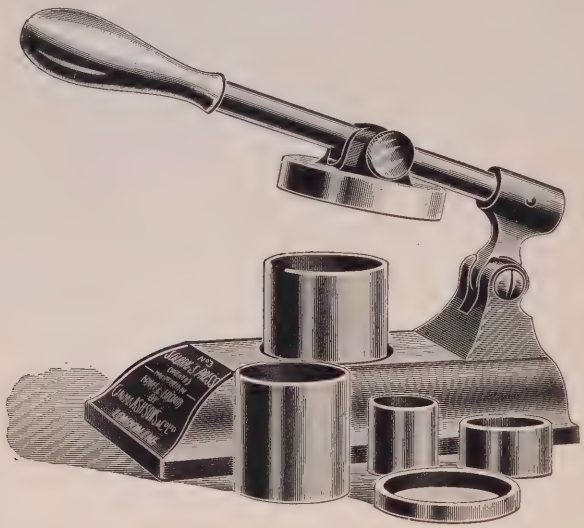
For Casting of Gold and other Metals, Inlays, Crowns, Bridges, Backings, etc.



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Press,
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1 box Asbestos Discs,
1 box containing—
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  12 Sticks Wax,
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1 Support for Holding Cylinders over the Bunsen,
1 pair Cylinders Tweezers,
1 tin Coating Material,
1 Book of Directions,

Price with accessories, $35.00

Volume 9 Number 2

SEPTEMBER - 1919

Ash's Canadian Quarterly

Issued from Toronto, June, September, December, March

Claudius Ash, Sons & Co., Limited

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11-13 Grenville Street, Toronto, Canada

Main Depot London, W., England

CONTENTS

SEPTEMBER, 1919

Advertising Section - - - - - Page 2

ORIGINAL MATTER—

To the Dental Profession - - - Page 3

Ash's Canadian Price List - - Page 4

Preliminary Announcement of the 1919 Program of the National Dental Association - - - - - - Page 15

Advertising Section - - - - - Page 21

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Weber Dental Mfg. Co.
Lee S. Smith & Son
L. D. Caulk Co.
Goslee Teeth
D. S. Crowns
T. C. Crowns and Teeth
D. S. Facings
Trubyte Teeth
H. D. Justi & Son's P. M. Facings
And many other lines of Merit.

If you have not been sending us your orders begin now—We will be pleased to supply you with stamped addressed Postal Cards.

CLAUDIUS ASH, SONS & CO., Limited

Ash's Canadian Quarterly Circular

Vol. IX. TORONTO, SEPTEMBER 1, 1919 No. 2

To the Dental Profession

IN compiling this Canadian Price List we have endeavoured to list the more essential articles required by the average dental practitioner.

It is our intention in the near future to curtail the enormous stock of Forceps, Excavators, Scalers, Chisels, etc., which we have carried in the past and which has not been called upon to any extent, but to keep augmented stocks of instruments that are in greater demand.

We hope at an early date, when the majority of our producers have returned to our factories from His Majesty's Service, to undertake the manufacture of all classes of special instruments, appliances, etc., and to give prompt and efficient service to the dental profession.

We take this opportunity of thanking the members of the profession for being so patient with us during the years of stress and trial, all of which was directly attributable to the war and Government requirements.

CLAUDIUS ASH, SONS & CO., LTD.

Ash's Canadian Price List

AMADOU. See Spunk.

ALUMINIUM. Price on application.

AMALGAM CARRIES.

Hampel's, each	$ 1.75
Wilmott Spoon, L.H., each	1.10

AMALGAM.

C.A.S. Filings, only, oz.	2.25
Do., 5 ozs.	10.50
Do., 10 ozs.	20.00
Ash Special Filings and Shavings, 1 oz.	1.75
Do., 5 ozs.	8.50
Do., 10 ozs.	16.50
Do., 20 ozs.	31.00
Ash Globe (Copper), 1 oz.	1.25
Do., 5 ozs.	5.50
Ash Kirkbride's (Copper), 1 oz.	1.50

ANAESTHETIC.

Stovaine, 2 oz. bottles, bottle	1.50

ARTICULATORS.

Plain Line, each	2.00
Special Plain Line, each	1.50
Crown and Bridge, each	1.25

ARTICULATING PAPER. See Paper.

BELLOWS.

Standing with Rubber Bag and Tubing, each	13.50

BLACK'S CUTTING INSTRUMENTS. See Instruments.

BOOKS.

Appointment. Price on application.	
Rose's Vulcanite in Dentistry, each	1.00
Floate's Regulation of Teeth, each	1.00
Atlas of Skygrams, each	3.75
Harrison's Popular Literary Drawings, each	1.50

BOXES.

Glass Gutta Percha, 3 Compartments, 1⅝x4¼x⅝, each	.65
Glass, Napkins, No. 5, 6x6 with Hinged Lid, each	6.50

BROACHES.

Ash Popular, dozen	.75
Do., ½ gross	3.00
Do., 1 gross	5.00
Do., 2 gross	9.50

BRUSHES.

Ash Tooth Polishing for Porte Polisher, dozen	.35
Do., gross	3.75

BURNERS.

Bunsen Handy, with Blow-pipe, each	3.75

BURNISHERS. See Instruments.

BURS, ASH POPULAR.

Nos. 1 to 10, dozen	1.00
Nos. 33½ to 41, plain, gross	9.00
Nos. 557 to 562, cross cut, dozen	1.25
Do., gross	12.00

CARTONS.

For Ash Waste Receiver, package of 50	.50

CALIPERS.

Mason Spacing, each	2.50

CLEAVERS CASE. See Instruments.

CARRIERS.

Hampel's Amalgam, each	1.75
Wilmott Spoon, L.H., each	1.10

CELLULOID STRIPS.

Carter's Thin and Ex. Thin, box of 100	.65

CEMENT.

C.A.S. Cement, Hydraulic, double portion, each	2.50
C.A.S. Cement, Hydraulic, 6-color, each	12.00
C.A.S. Cement, D.P. Powder, each	1.25
C.A.S. Cement, D.P. Liquid, each	1.25
Zincup Cement, small, each	1.25
Zincup Cement, large, each	3.75
Oxychloride of Zinc, each	1.50
Oxychloride of Zinc, powder, each	.75
Oxychloride of Zinc, liquid, each	.75
Sulphur Cement, bottle	.50

CEMENT.

Vulcanite Sticks, stick	.35

CASTING OUTFIT.

Solbrig's. See Press.

CHAIRS.

Ash Empire }
Ash Portable, Fig. 5 } Price on application.

CHAIR PARTS.

Head-rest, Roll-plush or Leather	35.00
Washers, Pump, Leather, per see of 4	1.50
Arms, Chair, Empire, per pair	13.00
Springs, Tilting Lever, each	1.75
Springs, Lifting Lever, each	1.25

CHIP BLOWERS. See Syringes.

CHARTS, DENTAL.

Charts of Teeth, Nos. 67 and 69, each	8.10
Charts, Teeth of Man, each	3.50
Charts, Dentition (Wellurs), each	3.50
Charts, 5th Pair of Nerves, each	3.50
Charts, Incisor Draprai, each	3.50

COMPRESSOR.

Veza, 3-case, each	3.25
Stool for Veza, each	.50

COMPOUND.

Impression, Stent's }
Impression, Crown } Temporarily discontinued.

CLAMPS.

Cotton Roll (Jones), each	.50

CUTTERS.

Gate, Cranwells, each	.35

COTTON PELLETT HOLDERS. See Holders.

COTTON WOOL HOLDERS. See Holders.

CONTOURING NIPPERS. See Pliers.

CUTTING NIPPERS. See Nippers.

DISKS.

Asbestos, Solbrig's No. 1, box of 50, each	1.75
Asbestos, Solbrig's No. 2, box of 50, each	1.45
Asbestos, Solbrig's Nos. 3 and 4, box of 50, each	.75
Asbestos, Solbrig's No. 5, assorted, each	.50
Asbestos, Solbrig's Pliers, each	1.40
Paper Discs, Sandpaper Grits, fine, medium, coarse, box	.15
Garne, Cuttlefish, Emery, Crocus, Carborundum, size ½ in., ⅝ in., ¾ in., ⅞ in., doz.	1.50

DISKS.

Diamond, ¾ in., each	2.25
Diamond, ⅞ in., each	2.50

DENTAL LAC. Pound 2.50

DRILLS.

Gates Glidden, for either Hdpc., each	.35
Beutelrock, for either Hdpc., each	.35

ELASTIC BANDS. See regulating appliances.

ELEVATORS.

Thompson, Nos. 1, 2, 3, each	3.75
Universal, No. 7, each	5.00
Hospital Pattern, Nos. 21, 22, each	3.75

EJECTOR.

Metal Saliva with Tongue Guard, Goodhugh, each	.90

ENGINES.

Ash Foot Engine, "C" Style with Duplex Connection, less Handpiece and Slip-joint, each	40.00
Ash Foot Engine, "C" style, with Duplex Connection and No. 7 Handpiece, less Slip-joint, each	51.25
Ash Foot Engine, "C" style, with Duplex Connection and No. 7 Handpiece and Slip-joint	56.75
Ash Travelling. Price on application.	

ENGINE BELTS.

Ash "C" Style Engine, each	.40
Ash Travelling, each	.35

EXPLORERS. See Instruments.

EXCAVATORS. See Instruments.

FILES.

Metal with Tang Stubbs, 4½ in., each	.50
Do., dozen	5.40
Metal with Tang Stubbs, 5 in., each	.55
Do., dozen	6.00
Vulcanite D.E. Stubbs, 8 in., each	.80
Do., dozen	8.65
Vulcanite D.E. Stubbs, 9 in., each	.90
Do., dozen	9.75
Gold Rifflers, 11 in., dozen	5.40
Do., each	.50

FLASKS.

Vulcanite, Iron, Nos. 41, 42, each	2.50

FRAME.

Wire for Solbrig's, each	.50

FORCEPS.

Ash Extracting, pair	5.50
Tongue, each	3.50
Gum Guilotine, each	4.50

FUSIBLE METAL. See Metal.

GAGS.

Buxton, each	7.50
Simple, Nos. 1, 2, 3, each	.50

GUTTA PERCHA.

Pellets, bottle	.75
Stopping, Ash Pop. Tem., box	.35
Do., 3 boxes	1.00
Points, box	.50
Do., dozen	5.40

HAMMER.

Rivetting, each	.80

HANDLES.

C.S. No. 2 Metal, each	.20
Do., dozen	2.00
No. 10, 10a, each	.40
Do., dozen	4.25

HANDPIECES.

Straight Handpiece, No. 7, each	11.25
Right Angle No. 2, to Fit No. 7 Handpiece, each	6.25

HEADREST PADS.

No. 3 Double, pair	.75
No. 2 Roll, each	.70

HEATERS.

Gas Instantaneous Fletcher, each	17.50

HOLDERS.

Metal Cotton, Ash, each	1.25
Metal Cotton, Waste, each	1.65
Metal Cotton, Pellets, each	3.00

IMPRESSION TRAYS. See Trays.

INHALERS.

McFarlane, each	22.50

INSTRUMENTS.

Agate, Single end, No. 50, each	1.10
Agate, Single end, No. 51, each	1.25
Agate, Single end, Nos. 1, 2, 3, 4, each	1.00
Agate, Double end, No. 92, each	1.50
Agate, Double end, No. 93, each	1.50
Agate, Double end, No. 94, each	1.50
Black's L.H. Cutting Instrument, each	.65
Black's L.H. Amalgam Plugger, each	1.00

PLASTIC.

Special, D.E., Nos. 1 to 9, each	1.00
Ladmore's D.E., Nos. 10 to 16, each	1.00
Ladmore's S.E., No. 17, each	.90
Boyd Wallis D.E., Nos. 18 to 24, each	1.00
Williams D.E., Nos. 32 to 37, each	1.00
Woodson's D.E., Nos. 44 to 46, each	1.00
Instruments, C.S., each	.70

PLASTIC.

Flagg's L.H. S.E., Nos. 77 to 79, each	.90
Flagg's C.S., each	.70
Am. Pattern, Nos. 37 to 39, each	.70

BURNISHERS.

L.H. Single Head, each	.90
L.H. Double Head, each	1.10
C.S. Single Head, each	.70
C.S. Double Head, each	.90

CHISELS.

American Pattern, L.H., Nos. 2, 6, 8, 17, 18, 48, 48s, each	.90
American Pattern, C.S., each	.70

EXPLORERS.

D.E. American Pattern, Nos. 2 and 3, each	.90
Sets of 23 Instruments, Long Handles, Nos. 32 to 54, each	.55
Sets of 23 Instruments, Cone Socket, Nos. 32 to 54, each	.40

Note:—American numbers of above, 1 to 23.

EXCAVATORS.

Set of 164 Instruments, L.H., each	.60
Set of 164 Instruments, C.S., each	.40
Set of 164 Instruments, D.E., Nos. 153, 154, each	.75
Darby Parry, Long Handle, Nos. 200 to 236, each	.60
Darby Parry, American Nos. 1 to 37, each	.60
Darby Parry, Cone Socket, each	.40
Darby Parry, Double End, Nos. 220, 221, each	.75

CLEAVERS CASE.

Long Handle, each	.90
Cone Socket, each	.70

SCALERS.

Phorrhea, McDonagh, Set of 17 L.H., each	.90
Harlan's L.H., Nos. 57, 58, each	.90
Harlan's C.S., Nos. 57, 58, each	.70
Cushings L.H., Nos. 59 to 64, each	.90
Cushings C.S., Nos. 59 to 64, each	.70
Phorrhea, Younger's L.H., Nos. 70 to 84, each	.90
Phorrhea, Younger's C.S., Nos. 70 to 84, each	.70
Tompkins C.S., only Nos. 122 to 132, each	.70
Globe Double End, Nos. 143 to 148, each	1.10
Scalers Ash, American Pattern, L.H., Nos. 1, 3, 33, 34, each	.90
Scalers Ash, American Pattern, C.S., each	.70

INVESTMENT.

Solbrig's Coating Material, lb.	1.25
Do., 7 lbs.	3.50
Solbrig's Embedding Material, 28 lbs.	3.50

LANCETS.

All Metal Handles, Nos. 1 and 2, each	.75

MANDRELS.

No. 228, Huey's, for No. 7 Handpiece, each	.35
No. 230, Screw with Shoulder, each	.15
No. 231, Screw without Shoulder, each	.10
No. 233a, Porte Polisher with Shortened Head, each	.35
No. 303, R.A. Screw Head with Washers, each	.15
Do., dozen	1.50
No. 337, Morgan's Maxfield for No. 7 Handpiece, each	.50

MATRICES.

Celluloid Bands, box	.25

METAL.

Fusible, Lennox's Soft, for swagging and other purposes, lb.	6.25
Extra Thin for Linings, lb.	2.00
Medium for Polishing Plates only, lb.	2.00
Thick for Base and Trial Plates, lb.	2.00
Spence's Metal, lb.	.75

MIRRORS.

Mouth Cone Socket, each	.65
Do., dozen	7.20
Mouth, Ash, Smooth Handle, each	.75
Do., dozen	8.00
Mouth, Ebony Handles. Nos. 20, 21, 54c, each	1.00
Lens for Ash Spring Grip, each	.45
Mouth and Examining Lens Combined, Ebony Handle, each (Plain or Magnifying.)	1.75

OIL.

Ash Engine (2 oz. bottles), bottle	.40

OUTFIT.

Ash Repair Facings, each	5.50

ORTHODONTIA APPLIANCES.

See Regulating Appliances.

PAPER.

Articulating, Thin or Heavy, book	.15
Do., 1 doz. books	1.25

PLIERS.

Northcrop Plate, Black, 5 inch, each	1.60
Marthews Plate, each	2.00
Ash Coffin, each	1.25
Stubbs Flat Nose, Workroom No. 46, Black, each	1.60
Stubbs Round Nose, Workroom No. 49, Black, each	1.60
Stubbs Flat Nose, Workroom, 6 inches, each	1.75
Pin Roughening and Bending Pliers, No. 24, each	2.75
Tooth Holding Northcroft, No. 34, each	2.00
Crescent Contouring, No. 12, each	2.25
Patrick, each	2.25
Nerve Canal, Straight or Curved, each	3.25
Tooth Comparing, Northcrofts, each	.40

PICKS.

Tooth Palmers, Gold, each		2.50

POINTS.

Mosley Angle Holder, each		.30

PLUGGER POINTS.

Set of 120, each	$ .60, $ .85,	.95
Johnson, each		.60
Cheppels, each	$ .75, $1.00,	1.25
Royce, each		.75
Ladmore's, each	$ .75, $1.25,	1.50
Knowles, each	$ .75,	1.00
Bennetts, each	$ .60, $ .90,	1.15
Varney's, each	$ .75, $ .95, $1.10	1.35
Black's L.H. Amalgam, each		1.00

PASTE.

Mumifying, Ash, bottle		1.25

PRESSES.

Solbrig's Casting No. 1, with Accessories complete, less Flask Drying Furnace		75.00
Solbrig's Press Drying Furnace, each		15.00
Solbrig's Casting No. 3, with Accessories, each		40.00
Solbrig's Lids, No. 1, extra large.		
Solbrig's Lids, No. 2, large		
Solbrig's Lids, No. 3, large med.		
Solbrig's Lids, No. 4, medium.	Price on application	
Solbrig's Lids, No. 5, small.		
Solbrig's Lids, No. 3, serves for both Nos. 3 and 4 cylinder.		

CYLINDERS.

No. 5, small.		
No. 4, medium.		
No. 3, large medium.	Price on application	
No. 2, large		
No. 1, extra large.		

CONES.

No. 5, for 5 Cylinder.		
No. 4, for 4 Cylinder.		
No. 3, for 3 Cylinder.	Price on application	
No. 2, for 2 Cylinder.		
No. 1, for 1 Cylinder.		

PUNCH.

Ainsworth Rubber Dam, each		5.50

PACKERS.

Dental Rubber, each		.50

RACKS.

Instrument Glass, each		.35

REAMERS.

Mitchell Nos. 1, 2, 3, for either Handpiece, each		.60
Cross Cut, for either Handpiece, each		.50
Peeso's, for either Handpiece, each		.60
Ott. Lingual, for either Handpiece, each		.60
Williams', for either Handpiece, each		.60

ROOT ROUGHENERS.

Humby's, each	.25

RECEIVER.

Waste Glass with 6 Cartons, each	.55

RUBBER DAM.

Ash Creme, medium weight, yard	2.30

RUBBER, DENTAL.

Gum, Pink, Light, lb.	8.00
Do., 5 lbs., per lb.	7.20
Pink Repairing, lb.	8.00
Do., 5 lbs., per lb.	7.20
Dark Elastic, lb.	5.50
Do., 5 lbs., per lb.	4.95
Maroon, lb.	5.50
Do., 5 lbs., per lb.	4.95
Red, lb.	5.00
Do., 5 lbs., per lb.	4.50
Brown Repairing, lb.	6.00
Do., 5 lbs., per lb.	5.40
Brown Weighted, lb.	6.00
Do., 5 lbs., per lb.	5.40
Metallic, Weighted, per lb.	7.00
Do., 5 lbs., per lb.	5.30
Casco, Gold Colored, lb.	6.50
Do., 5 lbs., per lb.	5.85
Vela for Artificial Palates, lb.	8.00
Do., 5 lbs., per lb.	7.20
Improved Black, lb.	6.00
Do., 5 lbs., per lb.	5.40
Whalebone, No. 1, lb.	6.00
Do., 5 lbs., per lb.	5.40
Whalebone, No. 2, lb.	5.75
Do., 5 lbs., per lb.	5.20
Solid Base, per lb.	5.75
Do., 5 lbs., per lb.	5.20
White Base, lb.	6.00
Do., 5 lbs., per lb.	5.40
Soft Dark Red, for Palates, lb.	6.00
Do., 5 lbs., per lb.	5.40

ASH EMPIRE RUBBER.

Pink	1 lb., $6.00	5 lbs., $5.40	10 lbs., $5.25	25 lbs., $5.00
Red	1 lb., 4.00	5 lbs., 3.60	10 lbs., 3.30	25 lbs., 3.00
Maroon	1 lb., 4.00	5 lbs., 3.60	10 lbs., 3.30	25 lbs., 3.00

REGULATING APPLIANCES.

Ash Expansion Arch, each	1.15
Ash Anchor Band, Bicuspid, each	.85
Ash Anchor Band, Molar, each	1.25
Ash Elastic Band for Regulating, box	.50

SANODENT.

Per pkg.	1.50
Powder or Liquid, per bottle	.75

SCISSORS.

No. 7, Girwood's Plate Scissors, Curved, each	2.75
No. 8, Girdwood's Plate Scissors, Straight, each	2.25
No. 9, Beebee's Scissors, Crown Curved, each	2.75
No. 10, Universal Plate Scissors, each	2.75
Stubbs Plate Straight Handle, each	1.75

SHEARS.

Universal, each	3.00

SPATULAS.

Cement, Large Metal, each	.75
Cement, No. 22, American Pattern, each	.55
Cement, No. 24, American Pattern, each	.90
Wax. No. 5, each	.55
Wax, No. 7, Ash, each	.25
Wax, Howard's, each	.60

SCRAPPERS.

Kingsley Vulcanite, all sizes, each	.70
Round Vulcanite, each	.70
Hicks Vulcanite, each	.70
Pearson Chisel, Right and Left Straight, each	.70

STOOL.

Ash Operating, each	35.00

STRIPS.

Celluloid, Carter, Thin and Extra Thin (100 in box), each	.65
Alpha Cuttle, Ruby, box	.50
(Grits, fine, medium, coarse; widths, narrow, medium, wide.)	

SPUNK, oz.	.50

SUCTIONS.

Rauhe's Aluminum, Stud small, medium, large, extra large, each	.50
Do., ½ dozen	2.50
Rauhe's Rubbers only, for same, dozen	.65
Perfectus, Upper or Lower, each	1.00
Strengthes Hopper, No. 3, each	3.10
Strengthes Hopper, No. 4, each	3.00
Strengthes Hopper, No. 6, each	2.95

SWAGGER.

Crown Ash with two Rubber Block, each	2.75
Rubber Block with No. 5 Swagging Press, each	50.00
Duchscher's Differential Lever Action. Price on application.	
Rubber Blocks for Swagger, Hard or Soft, each	2.00

SYRINGES.

Ash Chip Syringe, No. 2, each	1.25
Ash Chip Bulbs, each	.75
Ash Extra Points, each	.50
Hunt's Self-filling Water Syringe, each	3.00
Hunt's Points for Water Syringe, each	.60
Hunt's Packings, Water Syringe, pair	.25
Slip Off Nozzle Water Syringe, 1 oz. bulb, each	2.25
Slip Off Nozzle Water Syringe, 2 oz. bulb, each	2.35
Extra Bulbs for same, each	.75

SYRINGES.

Elliott Syringe Points, each	.60

STANDS.

Metal Instrument, each	.80

TRAYS.

No. 3 Porcelain, for Forceps, 7¾x4¾x¾, each	.75
No. 4 Porcelain, same as No. 3, but divided down the middle, each	.75
No. 2 Porcelain, 1 9/16x1 9/16x½, each	.15
No. 1 Porcelain, 2¾x1 9/16x½, each	.15
Glass with Cover, 3 Compartments for Canal Points, each	.60
Impression Ash, German Silver or Britania Metal, each	.90

TRIPOLI.

Large Bar, pkg.	.35

TRIKRESOL AND FORMALIN.

Solution and Paste, pkg.	1.75
Paste or Solution, each	.90

TWEEZERS.

No. 6, Perry's Annealing, each	2.25
No. 8, College, each	1.25
No. 14, Charmack, each	2.25
No. 18, Connors, each	3.00
No. 24, Dernberg's Universal, each	3.50
No. 25, Aseptic Extracting, each	1.50
No. 4, Solder, Pointed or Blunt, each	.35
No. 6, with Loop End Plated, each	.20
No. 8, with Very Fine Points and Sliding Lock, each	.75
No. 9, Hill's Pattern, each	.75

VARNISH.

For C.A.S. Cement, each	.30

VASE DENNANTS.

Sterilizing, each	.75

WAX.

Ash Modelling, Pink or Yellow, ½ lb. boxes, lb.	1.30
Ash Beeswax, ½ lb. boxes, lb.	1.60
Ash, No. 2 Pink, lb. boxes, lb.	1.25
Ash, Solbrig's Thin Sheets, box	1.35

WRENCHES.

Ash's Hammer Head, each	.30
Yenor, each	1.90

ASH MINERAL TEETH.

Long Pin, Platinum, Flat Backs, each	.75
D.H.V. Platinum Pins (Rubber Teeth), each	.60
Casco Precious Metal Pins (Rubber Teeth), each	.25
Diatoric, each	.08½
Dowel Crowns, each	.20
Dowel Crowns, per 100, each	.15
N.M. Tube Teeth, each	.25
N.M. Tube Teeth, per 100, each	.22½
Repair Facings, each	.30
Repair Facings, per 100, each	.25

COMBINATION SETS.

6 Anterior-Plat. Pins 8 Posterior Diatoric	per set	4.25

CASCO COMBINATION SETS.

6 Anterior-Precious Metal Pins 8 Posterior Ash Diatoric	per set	2.10

ASH DOWEL CROWN COMBINATION SETS.

6 Anterior Dowell Crowns 8 Posterior Ash Diatoric	per set	1.75

ASH ALL DIATORIC, per set of 14 ..... 1.15

QUANTITY RATES.

$ 25.00 lots less 3%	$100.00 lots less 10%
$300.00 lots less 15%	$500.00 lots less 20%

CASH DISCOUNT.

$25.00 purchase, less 2%. $100.00 purchase and upwards, less 5%

Preliminary Announcement of the 1919 Program of the National Dental Association

New Orleans, La., October 20-24, 1919.

PROGRAM OF THE SECTION ON ORTHODONTIA AND PERIODONTIA.

New Orleans, La., October 20-24, 1919.

Tuesday Afternoon, 2.00 p.m.

"An Analysis of the Various Principles of Orthodontic Treatment that have been Advocated During the Last Fifteen Years."

By J. A. Cameron Hoggan.....Richmond, Va.

"Necessity for Oral Prophylaxis and Radiology in the Practice of Orthodontia."

By F. M. Casto.....Cleveland, Ohio

"Observations upon the More Recent Developments in Periodontology."

By Arthur H. Merritt.....New York, N.Y.

"Why the Field of Prophylaxis is Marked with a Lack of Enthusiasm."

By Dorothea A. Howes.....Washington, D.C.

Wednesday Morning, 9.00 a.m.

"Plurality in Etiology of Periodontoclasia."

By John O. McCall.....Buffalo, N.Y.

"What to Extract, and What Not to Extract, with Reference to Infections Involving the Periodontal Membrane."

By Louis D. Corriell.....Baltimore, Md.

"An Analysis of Case Characteristics with Reference to the Selection of the Most Efficient Form of Appliance for Treatment."

By A. H. Ketcham.....Denver, Colo.

"The Problem of Retention."

By C. A. Hawley.....Washington, D.C.

PROGRAM OF THE SECTION ON OPERATIVE DENTISTRY, MATERIA MEDICA AND THERAPEUTICS.

New Orleans, La., October 20-24, 1919.

FIRST SESSION.

"The Prevention of Chronic Mouth Infection." (Illustrated with stereopticon slides.)

By Arthur D. Black.....Chicago, Ill.

Abstract.—This paper will consider briefly the pathological changes which occur in cases of chronic alveolar abscess and chronic pericementitis, and will then discuss the causes and take up in detail the methods to be employed in operative dentistry for their prevention. Extensive studies of radiographs of root fillings will be reported, and means of simplifying pulp treatment and root-canal technic will be presented. Particular stress will be laid upon improvements in operative procedures to prevent peridental infection.

Discussed by
H. E. Friesell.....Pittsburgh, Pa.
A. H. Hipple.....Omaha, Neb.

"X-Ray in Dental Practice."

By C. Edmund Kells.....New Orleans, La.

Discussed by
H. B. Tileston.....Louisville, Ky.
Howard R. Raper.....Albuquerque, N.M.

SECOND SESSION.

"Some Recommendations for the Sterilization and Filling of Infected Roots."

By Weston A. Price.....Cleveland, O.

Discussed by
Clarence J. Grieves.....Baltimore, Md.
Percy R. Howe.....Boston, Mass.

"The Gold Inlay."

By R. H. Volland.....Iowa City, Iowa.

Discussed by
Wallace Wood.....New Orleans, La.
W. L. Fickes.....Pittsburgh, Pa.

PROGRAM OF THE SECTION ON HISTOLOGY, PHYSIOLOGY, PATHOLOGY, BACTERIOLOGY AND CHEMISTRY —RESEARCH.

New Orleans, La., October 20-24, 1919.

FIRST SESSION.

"How Mouth Infection Affects the Kidneys."

By Thomas B. Hartzell_____Minneapolis, Minn.

"A Phase of Dental Caries."

By Percy R. Howe_____Boston, Mass.

"A Biochemical Study of Bacterial Metabolism in Its Relation to the Denser Tooth Structures."

By Samuel E. Pond_____Cleveland, Ohio

SECOND SESSION.

"A Dental Histo-Pathological Study."

By Harold Box_____Toronto, Canada

"Physiology and Pathology of Special Interest to Dentists."

By J. J. Sarrazin_____New Orleans, La.

"Studies of the Variations in Susceptibility to the (so-called) Rheumatic Group Lesions and to the Influence of Oral Focal Infections."

By Weston A. Price_____Cleveland, Ohio

PROGRAM OF THE SECTION ON PROSTHETIC DENTISTRY AND CROWN AND BRIDGE WORK.

New Orleans, La., October 20-24, 1919.

Special Announcement.

Owing to the fact that only two half day sessions can be given to this section, it has been deemed best to dispense with long, exhaustive general papers and discussions, as more definite information can be given by selecting men to cover as many of the vital phases of this branch of dentistry as possible, with a view to standardizing technical procedure. The audience will thus individually have the opportunity of either accepting or rejecting the teachings of the essayists.

In addition to the papers and illustrations, the essayists will give individual clinics in order that those who desire to meet and discuss details further with the clinicians may have this opportunity.

FIRST SESSION.

Prosthodontia.

"Scientific Interpretation of Muscular Control of Mandibular Movements."

By George H. Wilson_____Cleveland, O.

Syn.—The dental profession and anatomists generally are not clear on this subject. Dr. Wilson has been doing research work along this line for some years, and is now ready to present his findings to the profession. Owing to the importance of this subject in its relation to denture construction we are fortunate to have it presented to us by a man of Dr. Wilson's ability and experience.

"Surgical Interference for Preparation of Malformed Edentulous Mouths for Construction of Dentures."

By James P. Ruyl_____New York City

Syn.—Demonstrates technic, using motion pictures for removing protruding gum tissue, irregular alveolar process, and other deformities in order to simplify complicated cases by providing a firm foundation upon which to build artificial dentures that will be more efficient and more beautiful.

Crown and Bridge Technic.

"Construction of Cast Clasps for Partial Dentures and General Consideration of Other Methods of Retention and Attachment of Vital Teeth for Removable Bridge Work."

By Louis J. Weinstein_____New York City

Syn.—Mr. Weinstein's knowledge of the uses and abuses of metals used in dentistry, combined with his technical experience, enables him to present us with definite information on a subject of vital importance at this time.

"Porcelain Jacket Crown Technic."

By A. L. Legro_____Detroit, Mich.

Syn.—Demonstrates a definite technic for making this most esthetic, as well as most valuable prosthetic restoration for the conservation of the dental pulp comparatively simple.

SECOND SESSION.

Prosthodontia.

"Selection of Artificial Teeth for Prosthetic Restorations."

By P. C. Lowery _____Detroit, Mich.

Syn.—Clearly demonstrates one of the most important phases of dentistry, which a large majority of dentists do not seem to appreciate as much as they should. The doctor shows that it is much simpler to harmonize tooth and face form than it is to adapt the face of your patients to your ideal tooth form.

"Correction of Malocclusion in Artificial Dentures."

By M. M. House _____Indianapolis, Ind.

Syn.—Demonstrates with precision the highest type of efficiency in artificial dentures.

Crown and Bridge Technic.

"The Gold Shoulder Crown Technic."

By Wm. H. Elliott_____Detroit, Mich.

Syn.—This technic of the most widely used restoration in dentistry is definite, accurate, and simple.

"Attachments for Vital Teeth in Fixed Bridge Work."

By Forrest H. Orton_____St. Paul, Minn.

(Dr. Orton's reputation as a technician and teacher of teachable technic is so great that no dentist can afford to miss an opportunity to hear him lecture.)

"Mandibular Movements and the Forms of Artificial Bicuspids and Molars Necessitated Thereby."

By Prof. Alfred Gysi_____Zurich, Switzerland

"Mandibular Control."

By J. Leon Williams_____New York City

PROGRAM OF THE SECTION ON ORAL SURGERY, EXODONTIA AND ANESTHESIA.

New Orleans, La., October 20-24, 1919.

FIRST SESSION.

Symposium: "Apicoectomy."

"Its Indications and Contra-indications and Root-Canal Technic." (Illustrated with stereopticon slides.)

By Thomas B. Hartzell_____Minneapolis, Minn.

"Surgical Technic of Apicoectomy." (Illustrated with stereopticon slides.)

By Chalmers J. Lyons_____Ann Arbor, Mich.

Discussed by

Thomas P. Hinman_____Atlanta, Ga.
William L. Shearer_____Omaha, Neb.
Carl D. Lucas_____Indianapolis, Ind.
Clarence J. Grieves_____Baltimore, Md.
H. A. Maves_____Minneapolis, Minn.

"Nitrous Oxid-Oxygen Anesthesia in Oral Surgery and Dentistry."

By J. A. Heidbrink_____Minneapolis, Minn.

Discussed by

Wm. H. Deford_____Des Moines, Iowa
John W. Seybold_____Denver, Colo.
Boyd S. Gardner_____Rochester, Minn.

"Tic doloureaux—Etiology—Diagnosis—Treatment—Palliative—Blocking and Surgical."

By Rudolph Matas (M.D.)_____New Orleans, La.

Discussed by

Herbert A. Potts_____Chicago, Ill.

SECOND SESSION.

"Impacted Lower Third Molar." (Illustrated.)

By George B. Winter_____St. Louis, Mo.

Discussed by

J. P. Henahan_____Cleveland, O.
Harry W. Allen_____Kansas City, Mo.
O. T. Dean _____Seattle, Wash.
Roy S. Hopkinson_____Milwaukee, Wis.

Symposium: "Block Anesthesia."

"Preparation of Solution."

By E. A. Litchfield_____Humboldt, Neb.

"Pharmacology of Various Local Anesthetics."

By Samuel L. Silverman_____Atlanta, Ga.

"Indications and Contra-Indications."

By Fred. F. Molt_____Chicago, Ill.

"Technic of Blocking." (Most important injections.)

By _____

"Suggestive Therapy and Treatment of Abnormal Conditions During and Following Injections."

By P. G. Puterbaugh_____Chicago, Ill.

"Diseases of the Antrum." (Illustrated with stereopticon slides.)

By Charles H. Oakman_____Detroit, Mich.

Discussed by

R. Boyd Bogle_____Nashville, Tenn.
Truman W. Brophy_____Chicago, Ill.

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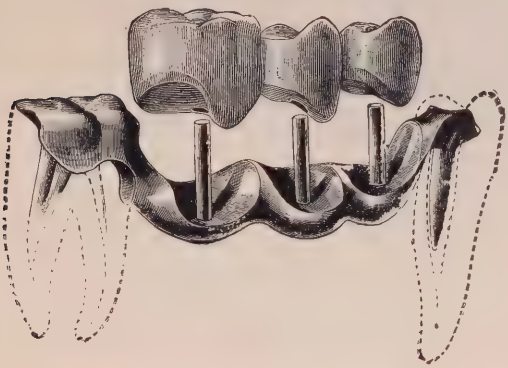

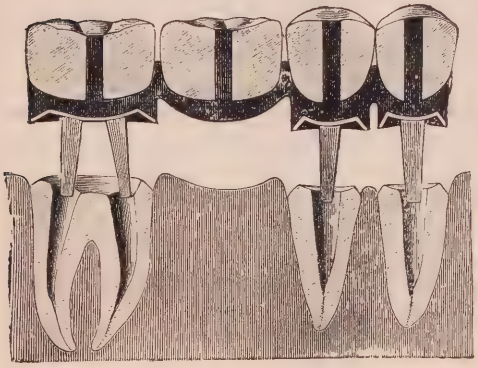

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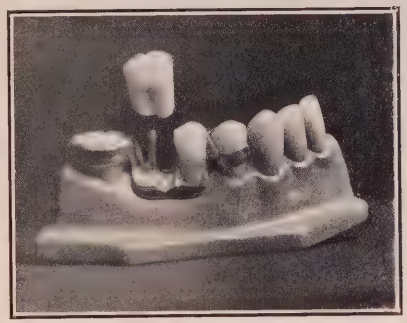

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4.—Gangerous Pulp and Fistula. Should a gangerous pulp be accompanied with a fistula, Dr. Buckley opens the fistula, drains off the pus, inserts cotton pellets soaked in Trikresol-Formalin Solution and seals perfectly air-tight with Fletcher's Artificial Dentine. If necessary the treatment is repeated several times. The final stages of the work are carried out as described above under No. 1.

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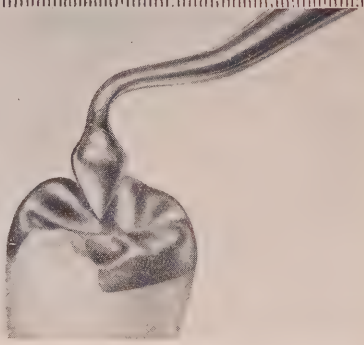

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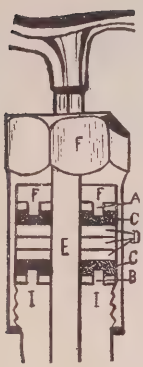

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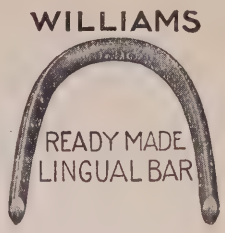

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